



Aces of the Republic of China Air Force



Raymond Cheung

© Osprey Publishing • www.ospreypublishing.com

MARK POSTERHILITE
14

OSPREY AIRCRAFT OF THE ACES 126

ACES OF THE REPUBLIC OF CHINA AIR FORCE



SERIES EDITOR: TONY HOLMES

OSPREY AIRCRAFT OF THE ACES 126

ACES OF THE REPUBLIC OF CHINA AIR FORCE

Raymond Cheung



OSPREY
PUBLISHING

CONTENTS

INTRODUCTION 6

CHAPTER ONE

CREATION OF THE REPUBLIC 7

CHAPTER TWO

SHANGHAI AND NANKING CAMPAIGNS 11

CHAPTER THREE

SINO-SOVIET PACT 29

CHAPTER FOUR

CHINESE-AMERICAN ACES 42

CHAPTER FIVE

COMBINED PURSUIT GROUP 67

CHAPTER SIX

CHINESE-AMERICAN COMBINED WING 76

APPENDICES 91

COLOUR PLATES COMMENTARY 91

INDEX 96

INTRODUCTION

Relatively little has been published in English on the Republic of China Air Force (ROCAF) and its fighter aces. What is available often does not do the subject justice for the simple reason of poor access to source data. Apart from the language barrier, there was the political turmoil in the region following the retreat of the Nationalist Chinese government to Taiwan in 1949. This volume, which takes advantage of better access to Chinese and Japanese records in recent years, will try to fill this gap.

In the bitter air fighting during the protracted eight-year war against Japan and the subsequent civil war against the Chinese Communists, the ROCAF produced 17 aces. These men came from a variety of backgrounds and scored their victories while flying a wide range of aircraft from biplanes to jets. Two received training from the Luftwaffe and one, quite incredibly, trained at the Japanese Army Air Force's Akeno Academy. The reason for this was, up until the eve of the Sino-Japanese War in 1937, China was a badly divided country. Military governors of the provinces fought against the Central Government and each other for dominance. The larger provinces even had their own air forces. Remarkably, it was only when faced with an invasion by Japan that all the factions came together and put up fierce resistance.

The Chinese Air Force (CAF) faced terrible odds. Japan had well-trained and well-equipped Army and Naval Air Forces backed up by a modern aviation industry. The Chinese, by contrast, were still in the process of building their air force when war broke out in 1937. With no aviation industry of its own, the Chinese relied on imported foreign combat aircraft. The Japanese mounted a highly effective naval blockade that hindered the delivery of these machines. Nevertheless, the Chinese gave a good account of themselves in the early stages of the war, producing 12 aces.

In 1940-41, the CAF was effectively knocked out of the war by the emergence of the vastly superior A6M Zero-sen fighter. It was only after the United States had entered the war and provided China with substantial amounts of military aid that the CAF was once again able to rejoin the fight. During this period five Chinese pilots became aces, including three who fought alongside USAAF pilots in the Chinese-American Combined Wing (CACW).

Please note that transliterations of names in Chinese are given in the form used during the war, rather than the modern Hanyu Pinyin.

Many friends and colleagues provided help and encouragement during this project, for which the author is most grateful. Special thanks go to the ROCAF; the Chinese Aviation Historical Society; Dr Wen, Liang-yan; Dr Yasuho Izawa; Gary Lai; Clarence Fu; Fu, Jing-hui; John Gong; David Chiao; Dong, X Y; Kamada, Minoru; Wu, Y D and Yeh, Daming.

CREATION OF THE REPUBLIC

The Republic of China came into being in 1911 with the overthrow of the Imperial Manchu Dynasty. This followed a long period of weak and ineffective rule, with the loss of territory and rights through the Unequal Treaties forced upon China by encroaching foreign powers. The leader of the revolution, Dr Sun, Yat-sen, called for the establishment of a constitutional democracy modeled on the United States. However, like many other revolutions that were to follow, these idealistic principles were quickly subverted.

A military strongman, Gen Yuan, Shi-Kai, got himself elected president. He then dissolved parliament, purged followers of Sun's Nationalist Party and forced Sun into exile. Yuan appointed military governors to each of the provinces, and they had control over local taxes and could raise their own military forces. Yuan declared himself emperor in 1915 and was, in turn, deposed. With troops, and the means to finance them, the military governors of the provinces found themselves with great power and influence. They became known as 'warlords' as they fought each other for dominance in government, and years of chaos and civil wars duly followed.

There is one interesting side note from the 'Warlord Period'. Chekiang Province had a small air force that lasted about seven months in 1924 before it was absorbed by another warlord following the 'Jiangsu-Chekiang Conflict'. A small air arm of a minor warlord would have been of little historical interest but for the fact that its commander was Etienne Tsu (朱斌候, Tsu Bin-hou). Tsu was originally from Shanghai and he went to college in France. Fascinated with aviation, Tsu obtained his pilot's licence in 1914. Upon the outbreak of World War 1, Tsu volunteered to fight for France. He was assigned to *Escadrille* N37 of the French *Aéronautique Militaire* and saw action in 1916-17, scoring three confirmed aerial victories – two German aircraft and one observation balloon. He was also credited with two enemy aircraft 'forced to land', which, according to some aviation historians, makes Tsu an ace.

During the Chinese civil wars of the 1920s, two of China's closest neighbours and regional rivals, the Soviet Union and Japan, supported rival factions. As a result of its victory in the Russo-Japanese War of 1904-05, Japan had assumed control of the Kwantung Leased Territories from Russia. The governor of the territories, called Kanto-cho in Japanese, had a large, modern Kwantung Army at his disposal. The Kanto-cho governor supported the government in Peking, which was also backed by warlords of the Northern Faction.

One of the most powerful warlords in the Northern Faction was Marshal Chang, Tsuo-lin, the military governor of the three resource-rich eastern provinces known to the West as Manchuria. Chang, nicknamed the 'Old Marshal', had the largest army, and he also started building an air arm



(the Manchurian Air Force) as early as 1920. It duly played an important role in the fighting against rival warlords in 1922 and 1924. By the late 1920s, the Manchurian Air Force was the largest in China.

The Soviet Union, wary of the Japanese presence in China, supported a small but growing Chinese Communist Party. Stalin also realised that he needed a more powerful ally to counter the Japanese influence. He supported Sun, Yat-sen's Nationalists, which had retreated to Sun's southern province of Kwangtung (known to the West as Canton). The Nationalists began building an army for a 'Northern Expedition' to wrest control of China from the warlords and unify the country under one central government. The Soviet Union provided arms and advisors to support this effort, including aircraft and pilot training.

Sun died of cancer in 1925 and was succeeded by military man Chiang, Kai-shek, who duly led the 'Northern Expeditions'. In 1928 the Northern warlord regime collapsed when the 'Old Marshal' Chang withdrew his support. The Japanese Kwantung Army assassinated him shortly thereafter, thinking perhaps that it would get better cooperation from his son, the Young Marshal Chang, Hsue-liang, who succeeded the 'Old Marshal' as military governor. The Japanese were to be bitterly disappointed, however. The 'Young Marshal' Chang declared his support for the Nationalists, essentially uniting China under Chiang, who set up his capital in Nanking.

However, China was 'united' in name only. In 1927 the Nationalists discovered a Chinese Communist plot to kidnap Chiang, Kai-shek. They purged the Chinese Communist Party from their ranks and expelled the Soviet advisors. This led to a split between the left and right wings of

Newly delivered Hawk IIIs with Chinese inscription on their noses. The closest aeroplane honours the business *Yi Cheng Hsiang* (義誠香), an inn or hotel in the city of Paoting that donated money to finance its purchase. Unlike the remaining Hawk IIIs in this photograph, the aircraft has yet to have its large fuselage side number applied. This shot was probably taken during a public display held before the Sino-Japanese War erupted. It is believed that many CAF aircraft featured inscriptions prior to the conflict. Unfortunately, few photographs were taken at the time, and even fewer have survived into the 21st century. This, coupled with the loss of CAF records, means that it is impossible to match inscriptions to aircraft numbers (All photographs courtesy of the Aviation Historical Society of the Republic of China [AHSROC] unless otherwise specified)



the Nationalist Party. The left wing rallied support from a number of provincial military governors to oust Chiang, leading to the Great Plains War of 1930. The right wing of the Nationalists under Chiang was hard pressed initially, but it prevailed in the end. However, the huge conflict, which involved more than one-and-a-half million men, left the Nationalist government nearly bankrupt.

Once again 'Young Marshal' Chang of Manchuria had played a key role in the conflict, committing a large army from Manchuria to the Great Plains War on the side of Chiang, Kai-shek. This was the last straw for the Japanese governor of Kwantung Territories. With the 'Young Marshal' Chang and almost half of his troops away, the Japanese Kwantung Army invaded and seized Manchuria in September 1931. This was to sow the seeds for a wider conflict with China and eventually the USA.

Weakened by the Great Plains War, China was in no position to contest the Japanese seizure of Manchuria. The League of Nations proved unable to stop the Japanese installing a puppet government and having Manchuria declare independence from China as the new nation of Manchukuo.

Faced with the threat of further aggression by Japan, the Chinese Central Government under Chiang, Kai-shek embarked on a long-term programme to build up its armed forces. Advisors were brought in from Germany to train the army while the US government provided flight instructors under Col Jack Jouett (the 'Jouett Mission') to help build the air force. From 1932 to 1935, 'Jouett Mission' instructors helped train Chinese cadets at the Central Aviation Academy at Schien Chiao, near Hangchow in Jiangsu Province. These aviators were to bear the brunt of the early fighting in the

Sino-Japanese War and produce the first aces of the CAF. Among them were young men who had fled Japanese-occupied Manchuria.

The invasion of Manchuria was known as the '18 September National Humiliation' to the Chinese. It galvanised Chinese public opinion, with volunteers determined to free Manchuria, and donations to help arm them, pouring in from all over China. The Central Government also received money from Chinese communities around the world, who also sent men to fight the Japanese. However, huge obstacles remained. There was still an active Communist insurrection supported by the Soviet Union, and factional rivalries continued within the Central Government and the highly autonomous provinces.

Kwangsi provincial forces had fought on the losing side of the Great Plains War, but they were able to retreat largely intact back to their home province. An uneasy truce between Kwangsi and the Central Government duly followed, and the invasion of Manchuria in September 1931 set aside any immediate threat of renewed hostilities. However, the Kwangsi provincial government remained wary of the Central Government – so much so that they accepted Japanese help to build their air force. The Japanese Army Air Force (JAAF) provided aircraft and instructors, and a number of Kwangsi pilots were even sent to the JAAF Academy at Akeno for advanced training.

Two years prior to the Japanese seizure of Manchuria, Gen Chen, Chi-tang had taken over as military governor in Canton. Under Chen, the economy of the province grew rapidly. With his new-found riches, Chen was able to invest in expanding his air force in 1931 following the invasion of Manchuria to the northwest. This military build-up in provinces such as Canton was, at least on the surface, in support of the national effort against Japanese aggression. Indeed, when Chinese forces clashed with Japan in the 1932 Shanghai Incident, the Cantonese Air Force had sent men and aircraft north to support the Central Air Force. However, when the Central Government proposed changes in 1936 curtailing the autonomy of Canton, such as replacing the local currency with a national one, Gen Chen balked. Indeed, the Canton and Kwangsi provisional governments formed an alliance to resist the Central Government.

Playing on public impatience at the apparent lack of action against Japan, the provincial leaders of Kwangsi and Canton mobilised their troops on the pretext that they would be 'marching north to demand the Central Government fight the Japanese'. Civil war seemed imminent – all this at a time when Japan continued to expand its influence and grab more territory in northern China. The Kwangtung–Kwangsi Crisis came to a sudden halt when large number of pilots from the Cantonese Air Force organised a mass defection and flew their aircraft north to join the Central Air Force. A number of Cantonese instructors in the Kwangsi Air Force also defected. Cynics suggest that the defection was the result of Nationalist Chinese agents bribing Cantonese Air Force officers. However, the sheer number of highly educated pilots who 'voted with their aeroplanes' suggests that this was a 'grass roots movement' of servicemen wanting to put national interests above provincial and factional issues.

Overnight, the Chinese Central Air Force almost doubled in size, making it much better prepared to fight a war. Nevertheless, numerous challenges remained, many of which had not been satisfactorily resolved when war broke out with Japan in July 1937.

SHANGHAI AND NANKING CAMPAIGNS

The Marco Polo Bridge Incident on the outskirts of Peking on 7 July 1937 ignited the Second Sino-Japanese War. The incident was the culmination of years of encroachment and expansion into northern China from Manchuria by the Japanese Kwantung Army. Finally, with the latter poised to occupy the old capital, Peking, the Chinese authorities had finally had enough and refused to back down.

On 9 August another 'international incident' threatened to widen the conflict. A Japanese naval officer by the name of Oyama exchanged fire with Chinese guards at an airfield near Shanghai and was killed. The Japanese demanded that Chinese troops withdraw from the Shanghai area. Fearing that the Japanese government would use the 'Oyama Incident' as a pretext to order its forces to invade Shanghai, the Chinese struck first. On 14 August Chinese troops, covered by aircraft, attacked the Japanese settlement in Shanghai. Both sides committed aircraft, and heavy fighting in the air and on the ground ensued. The Chinese Army failed to dislodge the Japanese from their stronghold in Shanghai, and additional enemy troops were brought in by sea.

An all-out war now ensued, with Japanese troops attacking from the north, as well as up the Yangtze River towards the Chinese capital, Nanking. The Japanese had hoped for a swift end to the conflict by capturing Nanking and deposing the Nationalist Chinese government. Chinese forces fought with unexpected fury, however, and it took four months of heavy fighting for the Japanese troops to capture Nanking. When it finally fell, the Chinese government did not capitulate. Instead, it moved in-land and continued fighting, miring Japan in a long and costly war.

A number of Chinese aces scored most of their victories during fierce fighting in this initial stage of the war.

Kao, Chi-hang (高志航)

Kao, Chi-hang was born in Tung-hua, Liaoning Province (Manchuria), in 1907, the eldest son in a well-to-do family that owned a large farm. Kao's family were devout Roman Catholics, and he attended the Sino-French High School in the city of Fengtien (now called Shenyang). When the new Aviation School of Manchuria began recruiting in 1924, Kao applied, but was turned down. He wrote an impassioned letter in French to the commandant of the Aviation Academy Chang, Hsue-liang, to plead his case. Chang, who had been educated in France, was suitably impressed and Kao was accepted. He was sent, along with 27 other cadets,

to France for training in 1925. Upon the completion of his tuition Kao returned to Manchuria, where he became an instructor.

When the Japanese invaded in 1931, Kao slipped out of Manchuria in disguise and joined the Central Air Force. He rose rapidly through the ranks, becoming commander of the 8th Pursuit Squadron (PS) and then commander of the 4th Pursuit Group (PG) in 1936. The 4th PG and its 21st, 22nd and 23rd Pursuit Squadrons (PS) were equipped with the new Curtiss Hawk III.

On 7 August 1937 the 4th PG was ordered north to Chow Chia Kou. Then, with fighting imminent in Shanghai following the Oyama Incident, Kao was recalled to Air Force Headquarters in Nanking on the 13th. The 4th PG was ordered to return to Schien Chiao the following day, and Kao was to join his group there.

Japanese Naval Intelligence had been closely monitoring the movement of the Chinese forces through radio intercepts and human intelligence. This allowed the Imperial Japanese Naval Air Force (IJNAF) to plan attacks of its own on Chinese airfields on 14 August aimed at knocking out the Central Air Force before it could enter the conflict. However, a large typhoon was covering the area around Shanghai at the time, heavy rain and high sea states preventing Imperial Japanese Navy (IJN) aircraft carriers of the 1st Carrier Air Group (*Kaga*) and the 2nd Carrier Air Group (*Hosho* and *Ryujo*) from launching air strikes.

Only the Kanoya Kokutai (Air Group) in Taipei, Taiwan, was able to send aircraft aloft in the form of 18 Mitsubishi G3M Navy Type 96s. One group of nine G3Ms was to attack Schien Chiao, while the other nine targeted Kwang-teh airfield. The latter group, led by Lt Cdr Asano, lost its bearings in bad weather over China and spent an hour trying to find its way. The Schien Chiao attack group, under Lt Cdr Nitta, became separated in the clouds and each flight made their own way to the target.

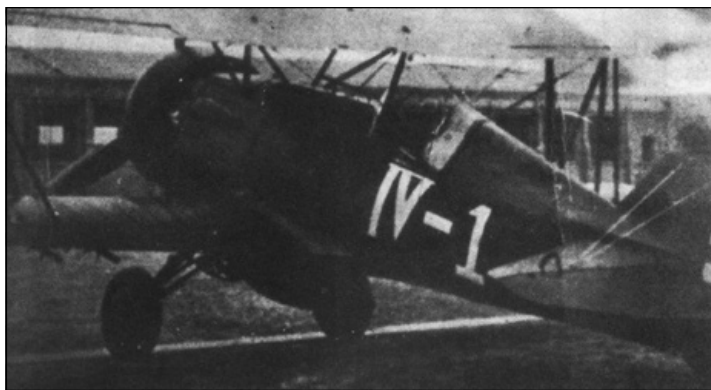
Heavy rain also hampered the flight of the 4th PG from Chow Chia Kou to Schien Chiao. One squadron, the 22nd PS, had to refuel at Kwang-teh before heading to Schien Chiao. It arrived just before the first G3M appeared overhead at 1715 hrs Chinese time (1815 hrs Japanese time). The other two squadrons had landed earlier, and they were refuelling when the air raid warning sounded.

Prior to the start of hostilities, Claire Lee Chennault, the US advisor to the CAF, had set up a network of ground observers connected to Air Force Headquarters via telephone and radio. Every time a ground station saw or heard aircraft nearby, observers would call in their reports. This provided extremely valuable early warning to the Chinese.

The 4th PG groundcrew were left behind in Chow Chia Kou, so the pilots had to pitch in to help refuel their own aircraft – it was a painstakingly slow process. Kao had hitched a ride back to Schien Chiao on a Chinese National Aviation Corporation airliner. Hearing the air raid warning, he ordered everyone to scramble. The 21st PS was able to get airborne first. Kao's personal aircraft, side number 'IV-1', had not yet been refuelled, but he climbed into the cockpit nevertheless and had two of his pilots start the engine. Taking off, Kao quickly spotted three G3Ms approaching from the north. This was the Command Shotai (Flight) led by Lt Cdr Nitta, which had previously passed to the west of Schien Chiao without spotting it due to low cloud cover. Nitta doubled back after



Kao, Chi-hang in the uniform of the Central Air Force



Hawk III 'IV-1' was assigned to 4th PG CO, Kao, Chi-hang, who scored all of his victories in it

Wreckage of a Kanoya Kokutau G3M found near Banshan, east of Schien Chiao airfield. This is believed to be the No 3 aircraft of the No 3 Shotai (Mitsui) claimed by Li, Kui-tan, Wang, Wen-hua and Liu, Chi-sheng near this location on 14 August 1937



finding his bearings when the formation reached Lake Tai Hu, to the northeast of Schien Chiao.

IJNAF doctrine of the period was to attack at the relatively low altitude of 1640 ft, with each G3M carrying two 550-lb land attack bombs. One bomb released by Nitta's formation hit a refuelling truck on the airfield, which proved to be the only real damage inflicted during the whole raid.

Hawk III No 2104, flown by Lt Tan, Wen, a flight leader from the 21st PS, was the first to attack. Nitta's aeroplane was hit by a single shot that took out a generator, although he and the No 2 aircraft in the formation were able to duck into a cloud and escape. The third G3M, flown by PO3c Iyoshio Momosaki, was not so fortunate and came under attack by both Tan and Kao. Kao, noting that Tan was shooting from too far away, bore in to close range from the left rear, taking advantage of the bomber's left tail fin which impeded return fire from the Japanese gunners. Kao then raked the fuselage with the Hawk III's 0.50-calibre (12.7 mm) and 7.92 mm machine guns, silencing the gunners. He then concentrated his fire on the left engine, which was quickly set alight. The G3M went down in flames near Banshan.

Ten minutes later the Kanoya Kokutai's No 3 Shotai arrived over Schien Chiao. After being separated from the main group, this Shotai found its way to Schien Chiao from Hangchow, to the west. The commander of the 21st PS, Capt Li, Kui-tan, and his two wingmen, Lts Liu, Chi-sheng and Wang, Wen-hua, ran into the No 3 Shotai to the west and chased it back towards Schien Chiao. The G3M crews did not see their target in time to drop their bombs before passing over it. Li and his wingmen concentrated on the No 3 G3M, shooting it down in flames just east of Schien Chiao. The remaining two G3M doubled back and bombed the airfield with little effect and then headed southeast towards the Chien-tang River.

Kao, returning after scoring his first victory, spotted the two G3Ms and gave chase. Once again, he bore in to close range, shooting up the fuselage of the No 2 aircraft commanded by PO3c Ogushi (observer). Then Kao aimed for the left engine, which was hit twice and stopped. However, return fire from the Japanese gunners scored a single hit on Kao's Hawk III, but it damaged an engine cylinder. At this point the low fuel light in the cockpit also came on and Kao broke off the chase.

Ogushi's damaged G3M limped on towards the Chien-tang River on one engine. Shortly after reaching the river it was attacked by Lt Cheng, Hsiao-yu, a flight leader



from the 22nd PS. Guessing correctly that the Japanese bomber would head south to the Chien-tang River, Cheng quickly caught up with Ogushi. Seeing the smoking left engine, the Chinese pilot concentrated his fire on the right engine. Ogushi's right wing was hit 21 times and a fire broke out, but it went out a short time later. Cheng turned back after firing all of his ammunition. Ogushi's pilot managed to bring the damaged aeroplane back to Matsuyama airfield for a forced landing. It had suffered 74 hits and the left landing gear would not extend. The damaged aeroplane was taken out of service and returned to Japan to be put on public display in Tokyo.

As Kao neared Schien Chiao, his engine stopped from fuel starvation and he made a dead-stick landing – five other Chinese fighters suffered slight damage during dead-stick landings. One of Kao's men from the 21st PS, Lt Liu, Shu-fan, died after he suffered fatal head injuries when his Hawk III crashed into a tree.

The Kanoya Kokutai lost a third G3M when the second aircraft of the No 2 Shotai, which attacked Kwang-teh, was hit in the wing tanks by a lone Hawk III flown by Capt Chow, Ting-fang of the 34th Provision PS. Unaware of the declining fuel state of his No 2, Lt Umebayashi (the leader of the No 2 Shotai) made a detour to bomb Schien Chiao, losing the No 3 aeroplane in the formation in the gathering darkness. Umebayashi then spent 40 minutes looking for his wingman, with the No 2 bomber sticking to his wing. The latter eventually ran out of fuel and was ditched just short of the Keelung lighthouse. The crew was rescued but the aeroplane was lost.

The 4th PG had started out with 27 serviceable Hawk IIIs on 14 August. Due to battle damage and landing mishaps, only 21 were available for action the following morning.

Just before dawn on 15 August the Japanese carrier *Kaga* launched a large strike comprised of 45 aircraft. The weather was still poor, however, and one group of 13 Yokosuka B3Y Navy Type 92 carrier attack bombers was unable to find its target in Nanking and returned to the carrier. A group of 16 Aichi D1A1 Navy Type 94 dive-bombers also failed to locate its target at Suchow airfield and decided to head for Schien Chiao instead. One flight became separated en route and tagged along with 16 Mitsubishi B2M Navy Type 89 carrier attack aeroplanes. This group was also unable to find its target at Suchow airfield and decided to attack Schien Chiao instead.

An impressive line-up of 4th PG Hawk IIIs, the fighters being marked with large side numbers denoting their squadron (21st, 22nd or 23rd PS) and their two-digit aircraft number within that squadron



Some 13 D1A1s eventually stumbled on the Chinese secondary airfield at Chao-Er, where 12 Curtiss Shrike attack aeroplanes of the Chinese 26th and 27th Squadrons of the 9th Attack Group were preparing for a strike on Shanghai. A dogfight duly ensued between two unlikely opponents, namely carrier dive-bombers and ground-strafting attack aeroplanes. Two D1A1s were shot down and a third machine was seriously damaged, returning to *Kaga* with a fatally wounded crewman onboard. The Chinese in return lost five Shrikes, two in takeoff accidents.

Low cloud cover neutralised the Chinese air raid warning network on this occasion, which meant that the squadrons at Schien Chiao received word of the approaching carrier aircraft only minutes before they were overhead the airfield – a mad scramble ensued to get the 21 serviceable Hawk IIIs into the air. Like the D1A1s sent to bomb Suchow, the two Chutai (squadrons) of eight B2Ms had also become separated in the clouds. Only the lead Chutai, led by *Kaga* Air Group Commander Lt Cdr Iwai, found Schien Chiao, the remaining Type 89s heading towards nearby Chiao-shi airfield.

Kao, in Hawk III 'IV-1', spotted Iwai's formation to the right and at a lower altitude. He rocked his wings to warn his squadronmates and then manoeuvred to get behind the last aircraft on the left-hand side of the formation. This was the No 3 aeroplane in the No 2 Shotai led by Lt Masanori Tanaka – his B2M would prove to be the only one in the IJNAF formation to survive the ensuing engagement. Tanaka's gunner, PO1c Mitsui, reported seeing the leading Shotai come under attack first. Lt Wang, Yuan-po, a flight leader in the 21st PS, reported hitting the No 3 aeroplane of the leading Shotai and shooting it down in flames.

Then it was the turn of Tanaka's No 2 Shotai. Kao hit the No 3 aeroplane and it burst into flames, and some reports indicate that he also attacked another B2M and set it on fire also. However, as Kao pulled away his Hawk III was hit by a single shot from behind, the bullet striking him in the left arm and passing through the instrument panel to damage the engine. Kao was forced to break off and land back at Schien Chiao.

The rest of the 4th PG also savaged the B2M formation, shooting down seven of the eight aeroplanes engaged. Only Lt Tanaka was able to return to *Kaga* in a bullet-riddled aircraft. The commander of the B2M squadron, Lt Cdr Iwai, and his deputy were both killed. The No 2 Chutai also lost



a B2M to a lone Hawk III flown by Lt Tung, Ming-teh, deputy commander of the 25th PS/5th PG. Tung had been stranded at Chiao-shi airfield overnight due to bad weather.

Kao was out of action for two months while he recovered from his wound. Returning to Nanking in October, he found that the combat strength of the Chinese fighter force had been so depleted that the 4th and 5th PGs had had to combine their aircraft. Even then there was only the equivalent of a single squadron of Hawk IIIs operational. All the pilots complained that the Curtiss biplane's performance was inferior to the new Mitsubishi A5M Navy Type 96 low wing monoplane carrier fighter that they were now encountering. Desperate to improve the top speed and agility of his Hawk III in order to counter the threat posed by the A5M, Kao stripped his fighter of superfluous equipment so as to reduce weight. Off went the bomb racks, the navigation lights, the auxiliary fuel tank and its streamlined fairing. The top speed and rate of climb of the stripped Hawk III were significantly increased.

On 12 October Kao took a stripped down Hawk III into action for the first time. At 1100 hrs the air raid warning network called in reports of two Japanese reconnaissance aeroplanes heading west over Ben-niu. Lt Col Kao led four Hawk IIIs up from Nanking to intercept. After a search of the area, the Chinese pilots found two Nakajima E8N Type 95 reconnaissance floatplanes from the Japanese seaplane carrier *Kamoi* heading east over Kiangyin. The group attacked the lead floatplane first, opening fire from behind at a distance of 490 ft. The lead E8N, flown by Lt Tokumori Nambu, commander of the *Kamoi* seaplane detachment, was hit and caught fire. Nambu turned sharply into the Hawks and collided with Lt Yuan's fighter, after which he crashed. Yuan, however, was able to force-land near Changchow, suffering only a bruised eye. The three remaining Hawk IIIs shot down the second E8N, which crashed into the Yangtze – its tail was seen sticking vertically out of the water before the floatplane sank.

Later in the afternoon the Japanese returned with nine G3Ms and 11 A5Ms and attacked Nanking. The Chinese were able to put up only five

A brand new Hawk III with the complete set of landing lights, bomb racks and mounting cowl for the centreline drop tank

Hawk IIIs, two Boeing 281s and one Fiat CR.32 to do battle. After circling for about 20 minutes at 16,000 ft, the Chinese spotted the Japanese aeroplanes in a 'T' formation. Initially, the Chinese pilots only saw six A5Ms escorting the nine bombers – the remaining five were probably trailing behind at a higher altitude. Capt John Wong of the 17th PS, flying a Boeing 281, attacked the tail end of the formation and shot down an A5M. The Hawk IIIs then tried to get at the G3Ms but they were prevented by the remaining IJNAF fighters. Hawk III No 2107, flown by inexperienced Sub-Lt Chao, Fang-chen, was shot down and killed by two A5Ms attacking from behind. Capt Liu was also hard pressed by an A5M, which damaged his Hawk III and put it into a spin. Liu was eventually able to turn the tables on his attacker, shooting the A5M down over Nanking.

During the height of the engagement Kao spotted a Hawk III being pursued by an A5M and went to its aid. The IJNAF pilot was forced to break off his attack and turn to face Kao, who made full use of the improved performance of his stripped down Hawk III to get onto the A5M's tail after two tight turns. Kao hit the engine in his opponent's fighter, sending the A5M earthwards trailing smoke. Three other IJNAF fighters, probably from the rear element, then simultaneously attacked Kao. The latter managed to keep the three A5Ms at bay until he could 'escape into nearby cloud cover', according to the official CAF history of this action.

What was left out of the account was a remarkable tale of the capture of an intact A5M, as Kao explained to a CAF reporter who interviewed him about the 'one-versus-three' dogfight – the story was not published until many years after the war. Kao recalled that the three A5Ms gave him such a hard time that at he had to use an 'outside loop' manoeuvre to elude one of his attackers. Kao would also snap off bursts every time one of the A5Ms overshot. Eventually, two of his protagonists broke off, leaving one machine flying a series of slow loops, its pilot seemingly oblivious to his surroundings. Closing in, Kao saw that his IJNAF opponent pilot was staring straight ahead, clutching the control column to his stomach. Eventually, the A5M ran out of fuel and came down intact in a field. After landing, Kao went to examine the aircraft and found that the Japanese pilot had been killed by a hit in the chest. His dying act was to pull his control column fully back, which explained the continuous looping.

The A5M (the second example to be captured intact) was quickly dismantled and hidden away. Both fighters were subsequently sent to the Soviet Union for testing. Reference to the capture of these aircraft was removed from the records, and it does not appear in the official history *Republic of China Air Force During the War of Resistance Against Japan*. The entry for this battle only lists three A5Ms claimed by John Wong, Liu Tsui-kang and Kao. However, Japanese records indicate that four A5Ms and three pilots were lost. IJNAF ace WO Tadashi Torakuma had to be rescued after force-landing his crippled A5M on the banks of the Yangtze during this battle. Torakuma was almost certainly Kao's first victim. For details of the capture of the first A5M see the entry on Loh, Ying-teh.

In November 1937 Kao was made commander of all Chinese pursuit units. Shortly thereafter he flew to Lanchow, in Kansu Province, in the far north of China, where the 4th PG had gone ahead to receive Soviet-supplied Polikarpov I-15bis and I-16 fighters. Faced with the threat of a common

enemy, the Soviets and the Chinese Nationalist government had concluded a pact whereby the former would supply combat aircraft and a number of 'volunteer' aircrew.

Once conversion training was complete, Kao tried to bring the I-16-equipped 21st PS back to Nanking to rejoin the fighting. However, the first two attempts failed due to bad weather, with the I-16s being left firmly on the ground at Chow Chia Kou on 21 November. While waiting for conditions to improve, the air raid warning network phoned in a report of approaching aircraft – bad weather hampered the ground observers, and the warning was not called in until very late. Indeed, Chinese mechanics were still trying to start the engines of the I-16s when G3Ms from the Kizarazu Kokutai arrived overhead and started dropping their ordnance. A bomb landed near Kao's I-16, killing both him and his groundcrew chief. A surviving member of the groundcrew reported that two failed attempts had been made to start the fighter moments earlier. They were trying for a third time when the bomb struck.

The loss of Kao – an inspirational leader to his men – was a big blow to the CAF, for his influence went well beyond the number of aerial victories he was credited with. In respect to the latter, the CAF awarded a pilot with a Star Medal for every confirmed victory he scored. Kao was awarded the Three Star Medal based on the 3.5 victories in the citation submitted before his death. However, as will be seen later in this volume, many inconsistencies have been found between the victory tallies in the Star Medals and the combat records of the pilots concerned. In the case of Kao, security concerns over a captured A5M appeared to have kept a confirmed victory out of the official records.

Kao was replaced as commander of the 4th PG by Maj Li, Kuei-tan, the unit being unofficially known as the 'Chi Hang Group' in honour of its former CO. The ROCAF base in Tai-tung, Taiwan, is officially known as Chi Hang Air Force Base – very appropriate for an airfield where ROCAF fighter pilots receive training in air combat manoeuvres.

Yue, Yi-chin (樂以琴)

Yue, Yi-chin was born in 1911 in Lushan, Szechuan Province. According to family lore, his unusual surname came about because of a famous ancestor, Yue, Fei (岳飛). A national hero of the Southern Sung Dynasty (12th century), he had been put to death as a result of false accusations from rivals in the court. Members of his family fled to Szechuan and changed their surname to a character with the same pronunciation but a different writing.

Yue was gifted academically and athletically, being chosen for the Szechuan Province track team as a sprinter and competing in the National Games when he was in high school. He was in the first year of medical school at the prestigious US-run Cheeloo University when the Japanese invaded Manchuria. Yue dropped out and enrolled in Class 3 of the Central Aviation Academy, and after graduation he was assigned to the 8th PS. He later served as an instructor in the Academy, before becoming a flight leader in the 22nd PS/4th PG.

On 15 August 1937, during the dawn action that saw the 4th PG shoot down seven of eight B2M carrier attack aeroplanes from the 1st Chutai, Yue claimed no fewer than four victories – 16 of the 21 4th PG pilots



Kao, Chi-hang on the right, when he was commander of the 4th PG. On the left is Li, Kuei-tan, commander of the group's 21st PS. Li succeeded Kao as CO of the 4th PG when the latter was killed in a bombing raid on 21 November 1937. Li was himself killed in action over Hankow on 18 February 1938. Li appears to be in a standard issue flightsuit, while Kao may be wearing one purchased privately. Fellow CAF pilots of the period with the financial means, particularly those from the US, had tailor-made flightsuits



Yue, Yi-chin was described as a stoutly built fellow 'with a big nose'. In the mid-1930s the CAF was able to attract the brightest young men in the best physical shape, Yue being a good example. A nationally ranked sprinter who represented his home province Szechuan in the National Games, Yue was in his first year of studying medicine when he decided to enroll in the Central Aviation Academy

engaged in this action submitted claims for solitary or shared victories. Multiple pilots fired at the same aeroplanes, with the first B2M to go down being shared between five pilots.

Six days later the CAF mounted an attack on the Japanese airfield at the Kunda Textile Factory in Shanghai, despatching six Northrop 2E bombers from the 2nd Bombardment Group (BG). Their escort of nine Hawk IIIs from the 22nd PS, led by Capt Raymond Wong, became separated from the bombers as they approached Shanghai. The Northrops were duly intercepted by six E8N floatplanes, led by Lt Tokumori Nambu, off the seaplane carrier *Kamo*i. The E8N possessed remarkable agility for a floatplane, which made it well suited to the air defence role during the early stages of the Sino-Japanese War.

The bombers were forced to jettison their ordnance and break off their attack. Although the IJNAF claimed to have downed two of the Northrops, none were actually lost. The floatplane crews also reported getting into a fierce action with around ten Hawk IIIs, and they claimed to have downed three of them, including one by ramming. A 'Boeing fighter' was also reportedly shot down, although this may have been a misidentification of a Northrop 2E since none of the Chinese Boeing 281s were present on this occasion.

None of the Hawk IIIs were in fact lost during this action, and only one CAF pilot scored a victory in return – Lt Yue, Yi-chin, who claimed a 'pursuit aeroplane in a dogfight near Tsu-Chia-Tsai, in the western suburbs of Shanghai. One Japanese floatplane was indeed lost, PO1c Shigeru Yano stating that his E8N was attacked by four fighters ('Curtiss Hawks' and 'Boeings') that shot away his rudder controls. He claimed that he rammed one of the Chinese fighters with his float, bringing it down, but was then forced to ditch in the Whampoa River. The E8N sank but Yano and his observer were rescued by a Japanese warship. It would appear that Yano was shot down by Yue. None of the Chinese fighters reported colliding with Japanese aeroplanes, but this is probably not an idle claim. Two months later, the commander of *Kamo*i's floatplanes, Lt Tokumori Nambu, was killed ramming a Hawk III head-on. What follows is speculation, but Yano might well have attempted to ram Yue's Hawk III head-on and suffered serious damage to his main float in the process – leading him to believe he was successful.

The Chinese Hawk IIIs were armed with single 7.92 mm and 12.7 mm machine guns. At close range, a concentrated burst of 12.7 mm fire on the E8N's main float could cause quite a shock, and serious damage. Yue's Hawk III probably passed underneath the E8N and Yano would have been quite justified in thinking that he had hit his tormentor.

Yue's next claim came on 20 September over Nanking while he was flying Hawk III 'IV-1' in a group of nine led by Capt Liu, Tsui-kang. The fighters had taken off, along with two Boeing 281s from the 17th PS/3rd PG, to intercept two large formations of Japanese aircraft approaching Nanking. The Hawk IIIs that had functioning oxygen systems (including Yue's) circled at 20,000 ft looking for opportunities to attack. While the Boeings tied down the escorting A5M fighters, the Hawk IIIs tried to get through to the bombers. Yue claimed a 'light bomber' west of Chenkiang, Japanese records showing that he had probably attacked the D1A1 of Lt Yoshiyuki Kame. Kame was leading a formation of 15 D1A1s and D1A2s from *Kaga*

and the 13th Kokutai when he came under attack from a lone Hawk III diving out of the sun near Chenkiang. The D1A1 was damaged and its gunner, PO1c Kuroki, killed. Kame was, however, able to bring his damaged aeroplane back to Kunda airfield in Shanghai.

Yue, Yi-chin was killed in action on 3 December 1937 over Nanking. Earlier, he and Capt Tung, Ming-teh had been promoted to deputy commander and commander of the 21st PS/4th PG, respectively. The two had flown to Nanking in the group's last two operational Hawk IIIs, and shortly after their arrival the airfield received an air raid warning. Taking off, Yue and Tung engaged an IJNAF bomber formation escorted by 11 A5M fighters. Tung reported that Yue's Hawk III was hit and he bailed out, but his parachute failed to open and he fell to his death. Yue had been awarded the Five Star Medal prior to being killed in combat.

Liu, Tsui-kang (劉粹剛)

Liu, Tsui-kang came from a well-to-do farming family in Chang-Tu County, Liaoning Province in Manchuria, near the border with Inner Mongolia. Liu was 19, and had just graduated from high school, when the Japanese invaded Manchuria. Like many of his contemporaries, Liu fled occupied Manchuria and headed south. He first enrolled in the Army's Military Academy and later transferred to the Central Aviation Academy's Class No 2. Liu quickly earned a reputation as a highly skilled pilot and excellent marksman. Less than three years after graduation Capt Liu became commander of the 24th PS/5th PG.

Liu claimed the 5th PG's first victory on 16 August 1937 when the group dive-bombed Japanese positions in Shanghai using 500-lb bombs. Shortly after completing their bomb runs, the Hawk IIIs came under attack by two E8N floatplanes. Liu spotted the aircraft first and dived after one of the floatplanes, covered by his group commander and a wingman. Liu claimed to have silenced the rear gunner before sending the E8N diving earthwards about six miles northwest of Shanghai. The Japanese floatplane must have recovered from its dive as none was recorded lost on the 16th.

The following day Liu led three Hawk IIIs on another bombing attack on Japanese positions in the Hong-kou area of Shanghai. After dropping their ordnance, the CAF pilots spotted a 'Vee' formation of eight Japanese bombers, escorted by two biplane fighters, over Cha-pei. Liu, in Hawk III No 2401, led his flight into the attack. His wingman, Lt Fu, Shiao-yu in Hawk III No 2405, claimed to have shot down one of the fighters. Liu attacked the lead bomber in the formation and claimed it destroyed as well. Japanese fighters counterattacked, and Hawk III No 2408 flown by Liu's other wingman, Lt Yan, Pei, was hit and had to be force-landed. A *Kaga*-based Nakajima A2N Navy Type 90 fighter was damaged, but its pilot managed to return to the carrier. A B2M carrier attack aeroplane was also damaged and ditched in the Whampoo River, its crew of three being rescued by a British merchant ship.

On the afternoon of 20 August Liu led nine Hawk IIIs in the search for Japanese warships reportedly sailing near the mouth of the Yangtze River. After searching for an hour without success, Liu and his pilots dropped their bombs on the Japanese barracks at Hong-kou. Two IJNAF fighters tried to intervene, Liu spotting one some 2000 ft below him, and he made a diving attack from above and behind. The Japanese aeroplane



Tung, Ming-teh was a 'near ace' with a distinguished combat record. On 15 August 1937 he single-handedly attacked a formation of eight B2M Navy Type 89 carrier attack aeroplanes and claimed one shot down – IJNAF records confirmed this victory. During the dawn raid on Yangchow by the Kisarazu Kokutai six days later Tung was the first in the air, and he managed to single-handedly down one of three Chukohs from the Yoshida Shotai. Tung's Hawk III was damaged by return fire, however, and when he force-landed in a rice paddy he was thrown from the cockpit and injured. Tung scored a number of shared victories and rose in rank to command the 4th PG. In June 1939 he was injured in a landing accident while test flying a Curtiss CW-21 in Chungking. Tung duly missed much of the action in 1939-40, almost certainly depriving him of the opportunity to become an ace



Liu, Tsui-kang prepares to climb into the cockpit of a Hawk II while with the Central Aviation Academy. He had demonstrated great flying and gunnery skills while at the Academy. Indeed, he was asked to write a manual on air combat techniques upon the completion of his training. The manual included diagrams showing attack profiles to be used against two-seaters with a rear gunner. Liu recommended approaching from behind and below, in the blind spot of the rear gunner

was sent diving earthwards over Hu-hsi, in Shanghai. Moments later Liu spotted an E8N floatplane. Once again, he attacked from above and behind. The damaged Nakajima fled towards the Yangtze, and Liu pursued it until he eventually shot the floatplane down near an IJN warship. Japanese records indicate that the E8N was from the seaplane carrier *Kamoi*, and that both crewmen were killed.

On 22 and 23 August Liu flew escort missions for aircraft attacking both Japanese positions ashore and warships off Shanghai. On the 23rd he led four Hawk IIIs as escorts for Chinese aircraft attacking enemy landing beaches and transports near Liu-he, east of Shanghai. During the course of this mission they spotted five Nakajima A4N Navy Type 95 fighters from the carrier *Ryujo* engaged in a dogfight with Boeing 281s of the 17th PS/3rd PG. Liu, in Hawk No 2401, made a diving head-on pass at one of the fighters and then broke away. Spotting a second A4N, he closed to within 490 ft of the aeroplane before opening fire. The Nakajima biplane was hit hard, descending in a 'falling leaf' manoeuvre according to Liu, who claimed it as a victory. IJNAF records indicate that all the A4Ns returned to *Ryujo*, however, although two fighters suffered significant damage after

suffering 30 and 23 hits, respectively.

In the following weeks Liu flew mainly ground support missions. As previously noted in this chapter, the CAF was forced to pool all serviceable Hawk IIIs from the 4th and 5th PGs into one composite group following steady attrition. With more personnel available than aircraft, pilots flew missions on alternate days. Liu was not on duty when the IJNAF mounted its first major attack on Nanking on 19 September. Casualties were heavy on both sides, although the Chinese could not replace the aircraft they had lost.

This in turn meant that the CAF was only able to send up 11 fighters to do battle the following day. Liu led nine Hawk IIIs aloft and Lt Hu, Tsuo-lung, a flight leader from the 17th PS/3rd PG, took off with his wingman in two Boeing 281s. They had orders to avoid combat with Japanese fighters. The Hawk IIIs equipped with oxygen patrolled at 20,000 ft while the open cockpit Boeings stayed at 15,000 ft.

The IJNAF aircraft approached in two large formations, one consisting of 12 D1A1 dive-bombers and four A5M fighters and the other being comprised of 15 D1A1 and D1A2 dive-bombers, 11 B3Y attack aeroplanes, two A5M fighters and 13 E8N floatplanes. The two Boeings managed to keep the A5Ms busy, allowing the Hawk IIIs to get at the bombers. Liu, flying Hawk III No 2202, and his two wingmen, Lts Yuan, Bao-kang in No 2 and Lt Hsin, Shou-yi in No 2109, attacked one of the dive-bomber formations, claiming to have damaged a D1A1. The remaining dive-bombers tried to surround the Chinese fighters, at which point two E8Ns also joined in the fray. Liu and Yuan both claimed a victory, and the IJNAF admitted the loss of one E8N and its crew.

On 22 September the IJNAF returned with three large formations of dive-bombers and carrier attack aeroplanes, covered by A5M fighters

and E8N floatplanes. Liu led ten Hawk IIIs aloft, with Capt John Wong, commander of the 17th PS, and his wingman also being scrambled in the two operational Boeing 281s. Once again, the latter aircraft engaged the escorts while the Hawk IIIs went after the bombers. This time, however, some of the A5Ms flew at a higher altitude in an attempt to intercept the Hawk IIIs before they reached the bombers. Liu left one wingman, Lt Chen, Tse-liu, to provide cover at 20,000 ft while he and Lt Yuan dived down to attack the dive-bombers at 15,000 ft. Chen subsequently ended up having to fight off a flight of A5Ms all by himself, the engine of his badly shot up Hawk III finally cutting out after it had been hit several times. The CAF pilot made a forced landing on the banks of the Yangtze shortly thereafter, injuring his face in the process. Liu and Yuan again claimed a victory each, although only a solitary D1A2 dive-bomber from the 13th Kokutai was lost.

Five days later Liu led six Hawk IIIs armed with two 110-lb and six 40-lb bombs in an attack on Japanese tanks that had been spotted near Lo-tien. Circling over the target area, the Chinese pilots failed to locate the tanks, but they did find two Japanese fighters instead. Hastily dropping their bombs on enemy troop positions, they turned to meet the Japanese fighters. Liu subsequently claimed one of the enemy fighters destroyed before leading all six Hawk IIIs safely back to Nanking.

On 6 October the IJNAF targeted Nanking once again, this time mounting two separate attacks. Liu led a motley collection of ten Hawk IIIs, a Boeing 281 and a newly repaired CR.32 aloft to intercept the raids. The defenders received a late warning of the second attack, which meant that CAF pilots struggled to get up to altitude to intercept the bombers. Whilst still in the climb Liu and his wingmen were set upon by the escorting A5Ms. Lt Tung, Ching-hsiang, who had already damaged a bomber, came under attack by two A5Ms. His Hawk III, No 2109, was damaged, forcing Tung to dive out of the fight.

Liu, in Hawk III No 2407, was too late to help Tung, although he managed to get onto the tail of the second of the attacking A5Ms. Liu rapidly closed on the enemy fighter and hit it with a concentrated burst that sent the Mitsubishi into a spin. The other A5M then attacked, forcing Liu into a spiralling climb. The fighter fired on Liu numerous times in the next few minutes, but because he was turning so tightly the Japanese pilot was unable to pull enough lead to hit him. Eventually, Liu pulled over into a spiralling dive. The A5M pilot, probably thinking that Liu had been hit, did not follow.

On his way back to Nanking Liu spotted a lone Hawk III coming under attack by an A5M, although he was too far away to intervene. The CAF pilot did not see his attacker in time and was shot down without taking any evasive action. This turned out to be Liu's other wingman, Sub-Lt Ma, Chin-chung, who was fresh out of flying school. He was killed.

Liu was credited with a victory, although Japanese records indicate that a badly damaged A5M was able to stagger back to Shanghai long after it had been given up as lost.

On 12 October Liu was one of the four pilots selected to take newly modified Hawk IIIs into action, Lt Col Kao having ordered all excess equipment stripped off to reduce weight and improve performance. In the morning action Liu shared in the downing of two E8Ns from the seaplane carrier *Kamoi*.



The wreckage of the Hawk III flown by Liu, Tsui-kang after it had crashed into the Kui Hsing Pagoda at Kao Ping on the night of 26 October 1937. Liu was leading a flight of Hawk IIIs to the besieged city of Taiyuan to relieve the 28th PS, which had lost most of its aircraft in a month of intense combat. Liu's flight was caught in a heavy rainstorm and was unable to find Taiyuan. Turning back towards Loyang, the flight became separated in the gathering darkness. Liu dropped a flare to help his wingman force-land in a field. Hoping to save his precious aircraft, Liu flew low to investigate a bright fire near a town. It had been lit by the mayor of Kao Ping in the hope that the lost aircraft would spot it. Unfortunately, the mayor had started the fire near the only tall structure in the area, a pagoda, which Liu crashed his Hawk III into and was killed

and Liu could only keep turning tightly to avoid being hit. He eventually pushed the nose of his Hawk III over into a dive towards the Chung Hwa Gate at the southern edge of Nanking. The A5M followed. Pulling up into a series of tight loops, Liu forced the A5M to overshoot after the third loop. Seizing his chance, he opened fire and sent the A5M crashing into the streets of Nanking. Its demise was witnessed by many of the besieged city's residents, the destruction of the fighter greatly boosting local morale.

On 26 October Liu was ordered to lead four Hawk IIIs north to reinforce Taiyuan, in Shansi Province. After refuelling stops at Hankow and Loyang, Liu led the fighters aloft on the last leg of their journey to Taiyuan. Shortly after departure the weather closed, with visibility being severely reduced by heavy rain. The group only realised they had passed Taiyuan and were over Japanese lines when they were fired on from the ground. Forced to turn back towards Loyang, the four pilots became separated in the gathering darkness. One aviator managed to return to Loyang, whilst Liu, with his fuel rapidly running out, led the two remaining pilots in search of a place to land. Minutes later one of them ran out of fuel and was forced to bail out. Liu then dropped a flare to help his wingman land in a field, before descending to investigate the source of a fire he had spotted on the ground. Misjudging his height, the veteran pilot crashed into the Kui Hsing Pagoda and was killed.

The mayor of the town of Kao Ping had heard that Chinese aeroplanes were lost in the dark, and he had lit a fire to help guide them, not realising the danger posed by the only tall building in the town, the Kui Hsing Pagoda.

During the afternoon action that same day Liu led a CAF formation of five Hawk IIIs, two Boeing 281s and a CR.32 into the air at 1430 hrs Chinese time. Climbing to 16,000 ft, the fighters circled for 20 minutes until they spotted nine G3Ms escorted by what they thought were six A5Ms at 12,000 ft. The Boeing 281s attacked the Japanese fighters while Liu in Hawk III No 2407 tried to get at the bombers. He was forced to break off, however, when attacked by two A5Ms. After three head-on passes at the Japanese fighters Liu seized the opportunity to attack the G3Ms.

Seconds away from being within firing range of the bombers, Liu spied another A5M closing in on his rear, so he had to break off his pursuit and face his attacker. Rushing at each other head-on, the Japanese pilot fired first. Liu's Hawk III was hit and thrown into a spin, although he managed to regain control and pull up in time to face his attacker. The A5M dived past before Liu could fire, however, his opponent then using the speed built up from the dive to zoom climb into an advantageous position. The A5M was able to maintain the upper hand

Just prior to his death Liu had been awarded the Seven Star Medal, although combat records show that he had as many as 11 victories listed as confirmed. Because of this, many reference works list Liu as the top-scoring ace of the CAF.

Yuan, Pao-kang (袁葆康)

Yuan, Pao-kang was born in 1915 in Shanghai. In 1933 he dropped out of the city's St John University and enrolled in Class 5 of the Central Aviation Academy.

At the start of hostilities in August 1937 Lt Yuan was assigned to the 24th PS/5th PG, and he claimed his first victory on the 16th of that same month during a morning bombing raid mounted by the 5th PG on Japanese positions in Shanghai. The Hawk IIIs had completed their dive-bombing attacks, each dropping a single 500-lb bomb, when they were engaged by two E8N floatplanes. Lt Shi, Chang-ling, in Hawk III No 2409, pulled up too sharply evading an attack and damaged the top wing of his fighter. Yuan, in Hawk III No 2404, spotted Shi coming under attack and dived down to help. He claimed to have hit the E8N, sending it spiralling down towards the Shanghai suburb of Yangshu-pu. Historian Christopher Shores, in his 1983 volume *Air Aces*, reported that Yuan claimed an A3N fighter destroyed on this occasion. However, CAF records clearly indicate that Yuan claimed a 'single-float floatplane'. A2N tail code R-112 from *Kaga* was indeed lost on 16 August, but it was hit by ground fire over Suchow airfield in the afternoon. Japanese records are bereft of losses for floatplanes on that day.

Yuan's first confirmed victory came during the 21 August dawn attack on Yangchow. After suffering heavy losses in daylight attacks at low altitude, the Kisarazu Kokutai tried to catch the 5th PG on the ground at their home airfield by mounting a dawn attack at a higher altitude of 9840 ft. Six 9-shiki Chukohs (prototype G3M bombers), three each from the 4th and 5th Chutai of the Kisarazu Kokutai, took off from Cheju Island at 0215 hrs Japan time (0115 hrs Chinese time). They timed their four-hour journey across China so as to arrive over Yangchow at around 0515 hrs Chinese time. The two flights became separated in the darkness and proceeded independently to the target. The 4th Chutai flight, led by Lt Toshiie Irisa, could not find Yangchow and bombed Pukou, near Nanking, instead. The 5th Chutai, under Lt Kazuo Yoshida, found Yangchow.

Unfortunately for the Japanese, the 5th PG had received orders the day before to take off from Yangchow at 0500 hrs to launch an early attack on Japanese positions in Shanghai. By the time the 5th Chutai arrived over the target area at 0515 hrs the engines on most of the Hawk IIIs had been warmed up and the fighters were ready to take off at a moment's notice. Nevertheless, bombs dropped by the 5th Chutai destroyed two Hawk IIIs and damaged a third, killing a 5th PG pilot.

Four Hawk IIIs managed to get into the air, three of which went after the 5th Chutai and shot down all three 9-shiki Chukohs. Yuan was in the fourth Hawk III, No 2404. He spotted the 4th Chutai as it passed close to Yangchow on its way to the coast and Cheju Island. After a 20-minute chase, Yuan finally caught up with the 4th Chutai near the coastal town of Hai An. He opened fire and hit the wing tanks of the No 3 aeroplane in the formation, flown by NAP2/c Hikosaburo Sato. The bomber

dropped away in flames. Had Yuan then chosen to attack the No 2 aeroplane, the IJNAF could have lost a senior officer, for Capt Takijiro Ohnishi, Chief of the Education Branch, Aviation Headquarters, was onboard as an observer.

On 23 August, during the morning action covering Chinese raids on the Japanese invasion beachhead at Liu-he, near Shanghai, Yuan, in Hawk III No 2409, was flying as Liu, Tsui-kang's wingman when they engaged A4N fighters from the carrier *Ryujō*. Yuan had spotted a Nakajima biplane fighter climbing up to join the fight, so he dived on it and scored hits, sending the A4N away smoking.

During the defence of Nanking on 20 and 22 September, Yuan was in action whilst serving as wingman to Capt Liu, Tsui-kang. On both occasions, both Liu and Yuan were each credited with a victory. However, Japanese records showed that only one aeroplane was lost (with others damaged) in each of the actions. There is insufficient detail in the records to determine which pilot was actually responsible for the victories.

During a morning action on 12 October there was no doubt that Yuan was responsible, at least in part, for the downing of a Japanese aircraft. Flying Hawk III No 2404 (one of the four stripped-down fighters that were aloft that day), he and his squadronmates intercepted two E8N floatplanes from the seaplane carrier *Kamoi*. The Hawks had initially attacked the lead E8N flown by Lt Nambu from the rear. The floatplane was said to be on fire when it turned sharply to face Yuan's Hawk III. As with all head-on passes, breaking away too early would present an easy target for the opponent. Yuan pressed in close and ended up colliding with the E8N, the lower left wing and part of the upper wing of No 2404 being torn off. There was also damage to the tail. Nambu's E8N crashed in flames but Yuan was able to force-land near Kiangyin, suffering a bruised eye in the process.

Claire L Chennault described a conversation with Yuan about this incident in his memoir, *The Way of a Fighter*. That account would suggest that Nambu may not have been the only one intent on ramming. Chennault had noted that the Japanese monoplanes like the A5M had very lightweight construction. He suggested that, when necessary, Chinese pilots could consider ramming. After the action, Yuan, with an eye bandaged, complained to Chennault that he had said it would be okay to ram. Chennault explained that his recommendation was for the lightweight monoplanes. Yuan had chosen to take on a traditional biplane with heavily braced wings.

Yuan was promoted to deputy commander of the 25th PS, which was initially reassigned to the 3rd PG and later became an independent squadron. In early 1938 he flew mainly ground support missions in Shansi Province until he was eventually taken off flight operations due to ill health after developing a serious lung condition.

Mow, Ying-chu (毛瀛初)

Mow, Ying-chu was born in 1911 in Fenghua, Chekiang, the home town of President Chiang, Kai-shek. Mao was a distant relative of Mao, Fu-mei, Chiang's first wife. His family moved to Shanghai, where his father worked for Mobil Oil. Mao's brother Mao, Pan-chu was one of the first pilots trained in the Central Air Force, and he later became a senior



commander in the CAF. When the Japanese invaded Manchuria in 1931, Mow dropped out of the prestigious Chin-ling University in Nanking and enrolled in Class 2 of the Central Aviation Academy. Mow, who displayed excellent flying skills and did well academically, was retained as an instructor alongside the other American instructors of the Jouett Mission.

Mow was commander of the 23rd PS/4th PG when hostilities began, and on the morning of 15 August 1937 he claimed a B2M destroyed.

After suffering heavy losses during the 21 August dawn raid on Yangchow, the IJNAF switched to night bombing with its G3Ms. During the first raid on Nanking early in the evening of the 22nd, the Chinese were caught unprepared. When a second raid arrived two hours later, the 28th PS sent up five elderly Hawk IIs but they were unable to intercept the G3Ms. Art Chin recalled that the Hawk IIs in the 28th PS were so old and worn out that the luminous paint in the cockpit instruments had faded to such an extent that the pilots had a hard time reading the instrumentation in the dark.

The following night the 34th Provisional PS sent up six Hawk IIs, but they too were unable to bring down any of the attackers. The squadron leader, Capt Chow, Ting-fang, found three G3Ms with the help of searchlights, but his guns jammed. The 23rd PS was sent to Nanking to bolster the city's nocturnal defences shortly thereafter.

During the night of 26/27 August the IJNAF targeted Nanking with four flights of G3Ms, Mow leading four Hawk IIIs aloft to try and intercept the attackers with the aid of searchlights. He and flight leader Lt Lue, Chi-Chun managed to intercept two bombers from the 1st Chutai of the

Mow, Ying-chu, on the left, sits next to Raymond Wong, Kwang-han, commander of the 22nd PS, in this newspaper photograph taken after the battle of 15 August 1937 when the 4th PG decimated the B2Ms from *Kaga*. Mow had also dropped out of a prestigious university to join the CAF. He spoke very good English and was the CAF attaché in Washington, D.C. in World War 2. Post-war, his brother Peter Mow, Pan-chu was involved in a major scandal. Probably because of this, Mow's exploits during the war were not well publicised. Research of Japanese records showed that Mow was one of the first Chinese pilots to score a confirmed victory at night, and the first to achieve three victories in one action (on 19 September 1937 near Nanking). Mow only claimed one confirmed victory and two damaged in the after action report for the Nanking engagement, however. IJNAF records showed that all three dive-bombers Mow attacked were destroyed. Raymond Wong was involved in controversy following the IJNAF raid on Chow Chia-kou on 21 November 1937. He was one of the I-16 pilots caught on the ground by Japanese bombers in the attack that saw Kao, Chi-hang killed and Mao, Ying-chu wounded. After the raid Wong flew one of the undamaged I-16s to Nanking, where they were again targeted by Japanese bombers almost as soon as they arrived. Wong took off with three Soviet volunteer pilots to intercept the bombers, which were escorted by A5Ms. Early in the action Wong broke off and later crash-landed at a dispersal field. Having suffered injuries in the crash-landing, he travelled to Hong Kong to recover and took no further part in the war. According to some accounts, Wong was accused of cowardice in the face of the enemy and threatened with arrest, which prompted his departure to Hong Kong.

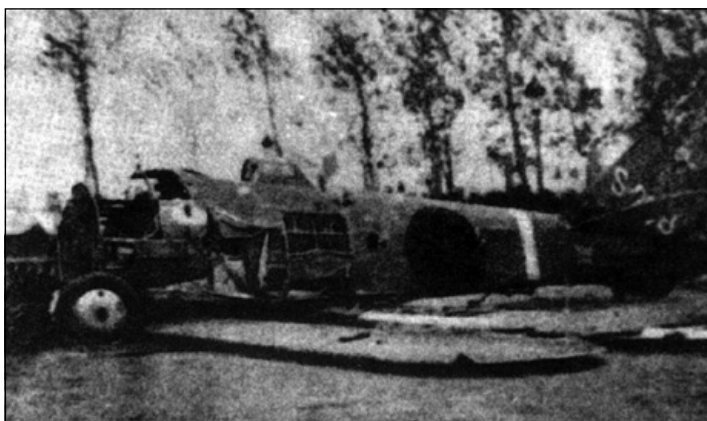
Kisarazu Kokutai. Guided by searchlights, Mow and Lue closed in and opened fire on the G3Ms shortly after they dropped their bombs. As they approached the town of Tien-chang, near Lake Kao-you, the second aeroplane of the 1st Chutai (a brand new G3M2 Model 21) caught fire and went down. This was the first successful night interception by the CAF.

On 19 September the IJNAF began an aerial campaign to destroy the Chinese fighter force defending Nanking. The 12th and 13th Kokutai, with their component dive-bomber, carrier attack aeroplane and fighter squadrons, were deployed to the airfield at the Kunda Textile Factory in the Japanese settlement in Shanghai. They were reinforced by additional A5M fighters from the carrier *Kaga*, as well as floatplanes from the seaplane carriers and warships sailing off Shanghai. On the morning of the 19th the IJNAF launched a large strike consisting of 17 D1A1 and D1A2 dive-bombers, escorted by 12 A5M fighters and 16 E8N floatplanes.

By this time the CAF was in poor shape. With a very limited supply of replacement aircraft, combat losses were rarely replaced. This in turn meant that the Chinese were forced to pool all operational fighters into one group to defend Nanking. With damaged aircraft not being available while they were repaired, the CAF now had more pilots than aeroplanes. A system was duly set up whereby pilots were only on flying duty every second day. On 19 September the Chinese put up all 23 available fighters to intercept the Japanese raid. Mow was on duty, and he led eight Hawk IIIs into the air, with a second formation of eight led by Capt Hu, Chuang-ru of the 25th PS/5th PG. The 3rd PG sent up five Boeing 281s from the 17th PS, led by Lt 'Buffalo' Wong, while the 8th PS committed two CR.32s, flown by Lt Harry Low and his wingman, Lt Huang, Chue-ku.

Patrolling at 12,000 ft, Mow, in Hawk III 'IV-1', spotted the Japanese dive-bomber formation at 11,000 ft, with A5Ms some 3000 ft above them, as they flew over the Ching-lung Mountains to the east of Nanking. He led his Hawk IIIs in a head-on pass against the dive-bombers, then quickly turned around and attacked the leading Shotai of three D1A2 dive-bombers, while his two wingmen attacked the No 2 Shotai. Mow hit the third Aichi in the lead Shotai, and it rolled to the right and went down streaming smoke. He then fired on the second D1A2, achieving the same results. Finally, Mow targeted the lead dive-bomber, which began to shed large pieces of debris – a piece hit and damaged the lower wing of 'IV-1'. Out of ammunition and chased by A5Ms, Mow broke off and returned

The wreckage of an IJNAF aircraft, thought to be an Aichi D1A1 Navy Type 94 dive-bomber of the 12th Kokutai, is the subject of this poor-quality photograph from a wartime newspaper. The S-prefixed tail code was in use in 1937 during the Shanghai and Nanking campaigns. This particular aircraft was probably hit by ground fire, as three were shot down by 37 mm and 20 mm cannon on 25 September, one ditching in the Yangtze, which might have been recovered largely intact. By some quirk of chance, all of the IJNAF dive-bombers lost during the September battles over Nanking were D1A2 Type 96s belonging to the 13th Kokutai (three on the 19th and one each on the 20th and 22nd)



to Nanking. On landing, 'TV-1' was found to have been hit in the fuel tank and the engine, damaging a cylinder.

Mow claimed one enemy aeroplane definitely downed, a second as a probable and a third damaged. However, Japanese records showed that all three D1A2s from the Shotai led by Lt Kawaguchi of the 13th Kokutai failed to return.

The remaining Chinese fighters were unable to reach the dive-bombers because of the stiff resistance put up by the escorting A5Ms and E8Ns. Indeed, the IJNAF pilots flying the Mitsubishi monoplane fighters, with their superior performance, were able to keep their CAF counterparts on the defensive, inflicting heavy losses. Seven Chinese fighters – three Hawk IIIs, two Boeing 281s and both CR.32s – were lost. Both Lts Harry Low, and Huang, Chue-ku were killed, as was Boeing 281 pilot Lt Liu, Lan-ching and one of Mow's wingmen, Lt Tai, Kwang-chin. Many of the surviving Chinese fighters were also damaged (two force-landed), requiring significant repairs to be carried out before they could return to service. While the actual losses were nowhere near the 33 claimed by the IJNAF pilots, a significant portion of the Chinese fighter force had been put out of action.

The IJNAF also suffered losses, for in addition to the three D1A3s destroyed by Mow, an E8N from the cruiser *Sendai* was shot down by a Boeing 281 and two more floatplane fighters (including one flown by Lt Nambu, commander of the *Kamoi* detachment) had to ditch in the Yangtze. All six crewmen were rescued but their aeroplanes were lost. Finally, an A5M that had incurred battle damage was written off when its pilot ran off the runway at Kunda and ended up in the Whampoo River. Unlike the CAF, the IJNAF could quickly replace its losses.

After the 19 September action, pilots from the 4th PG, including Mow, were sent to Lanchow to convert to I-15bis and I-16 fighters supplied by the Soviet Union. On 21 November Mow was in one of the fighters that was caught on the ground at Chow Chia Kou by the Kisarazu Kokutai. He managed to take off in a Hawk III and shoot down one of the G3Ms, although he was wounded in the shoulder during the engagement. Evacuated to a hospital in Hankow after returning to base, Mow was out of action until the following year.

Returning to the 4th PG in January 1938 as the deputy group commander, Mow was made CO when Maj Li, Kui-tan was killed in action on 19 February. On 29 April he led nine I-15bis from the 4th PG into action during the large aerial battle fought over Hankow, the CAF fighters being attacked by A5Ms. Mow turned too tightly during the action and his I-15bis fell out of the fight in a spin. Fortunately, he was able to recover at about 1000 ft.

In May he was transferred to serve as the deputy commander of the Combined Pursuit Group at Liangshan, in Szechuan Province. Units were rotated into the group from the frontline for short periods of rest and refit. Advanced pursuit training was also provided for the graduating cadets from Classes 7 and 8 of the Aviation Academy. The group moved to Lanchow, in the remote Kansu Province, in September, where it received new I-15bis. When JAAF heavy bombers attacked Lanchow on 23 February 1939, Mow took off in an I-16 and shared in the destruction of a Fiat BR.20. This was the last victory claimed by Mow, who later served as air attaché at the Chinese embassy in Washington, D.C..

SINO-SOVIET PACT

After the fall on Nanking in December 1937, the Nationalist Chinese government moved up the Yangtze to Hankow. The strategy was to draw Japanese forces into the hinterland and mire them in a protracted war of attrition. The Japanese, for their part, mounted a determined campaign to defeat the Nationalist Chinese government. They attacked up the Yangtze River towards the provisional capitol Hankow and mounted a naval blockade to deny imports of vital war materiel.

Faced with a powerful opponent, the CAF needed both men and aircraft to replace losses. The Sino-Soviet Pact signed in 1937 supplied both. One of the Chinese aces, Loh, Ying-teh, served as a liaison officer with a Soviet 'volunteer' unit. Another readily available source of well-trained pilots was the Kwangsi Provincial Air Force. Kwangsi forces had been formidable foes of the Central Government during the Chinese Civil Wars. However, the Japanese invasion, and the atrocities following the fall of Nanking, had galvanised support in the provinces for the War of Resistance against Japan. Kwangsi produced one ace, Chu, Chia-hsun, who had the distinction of being trained by men he later ended up fighting in the air.

Loh, Ying-teh (羅英德)

Loh, Ying-teh was born in 1913 in Pan-yu County, in Canton Province, the son of a rich merchant. He had been accepted into Chin-ling University in Nanking to study physics in 1931 when Manchuria was invaded. Loh enrolled instead in Class 2 of the Central Aviation Academy, opting to join the Central Air Force rather than his own Provincial Cantonese Air Force. After graduation, Loh was assigned to the 8th PS, and he later served as a flight leader in the 7th PS/3rd PG.

At the beginning of the war, the 7th PS was ordered to transfer all of its pilots and Hawk IIIs to the 4th and 5th PGs so as to bring these units up to full strength. Loh was reassigned to the 24th PS/5th PG, with whom he fought throughout the Shanghai and Nanking campaigns. According to official records, no aerial victories were credited to Loh during this period. This statistic, combined with Loh's short stature and unassuming demeanor, would suggest that his career had been relatively undistinguished up to this point. However, nothing could be further from the truth. Loh was in fact the first CAF pilot to shoot down an A5M. His success remained unreported until 1967 because Loh had persuaded the IJNAF pilot, who had been taken prisoner, to defect to the Chinese side.

This event had occurred on 26 September 1937 during a lull in the battle of Nanking, the air raid warning network telephoning in a report to the 24th PS of a single Japanese aircraft approaching the city. Lt Loh took off with his wingman, 2Lt Chang, Tao-liang, in two Hawk IIIs to investigate. They found a single A5M apparently on a reconnaissance mission. Carefully stalking the lone Japanese fighter, Lo got into position

A very youthful looking Loh, Ying-teh standing in front of a CR.32 when he was assigned to the 8th PS/3rd PG. Loh was amongst the few Cantonese to join the Central Air Force rather than their own Provincial Air Force. Small in stature like the stereotypical Southerner, Loh was well respected for his sharp mind and flying skills. While others advocated preserving strength in aircraft numbers by reducing training flights and accidents, Loh called for the opposite. He would have rather had a well-drilled force with fewer aircraft than one at full strength materially but with inadequately trained pilots



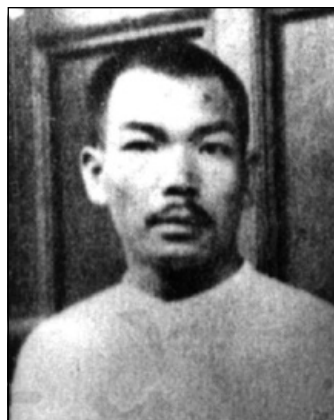
from behind and below and fired a well-aimed burst. The A5M pilot quickly climbed away, outstripping the slower Hawk III. Loh's shots had found their mark, however, the Mitsubishi carrier fighter having had one of its wing tanks badly holed. The A5M's pilot, Lt Shichiro Yamashita, was eventually forced to crash-land behind enemy lines, being injured in the process. Both he and his aircraft were captured by Chinese troops.

The A5M was quickly dismantled and shipped away. It was later sent to the Soviet Union for testing. Loh visited Yamashita, who was the 13th Kokutai fighter unit leader (Buntai-cho), in hospital and befriended him. Yamashita was expecting to be executed by his captors, and he was also ashamed of being captured. Loh reassured Yamashita and slowly gained his trust. Loh understood the Japanese belief that being captured brought great shame on the family. Playing on this psychology, Loh persuaded Yamashita to defect. This was a huge intelligence windfall for the Chinese, especially for the newly established cryptanalyst unit headed by MIT-trained mathematician Dr Chang, Chao-hsi.

One of the assurances that Loh offered to Yamashita was that his defection would not be made public for 30 years. Records of the shoot down were also removed from the CAF official history for good measure. This and the defection of another prisoner of war (an IJNAF officer from the carrier *Kaga*) greatly contributed to the Chinese breaking and reading IJNAF tactical codes during early stages of the war.

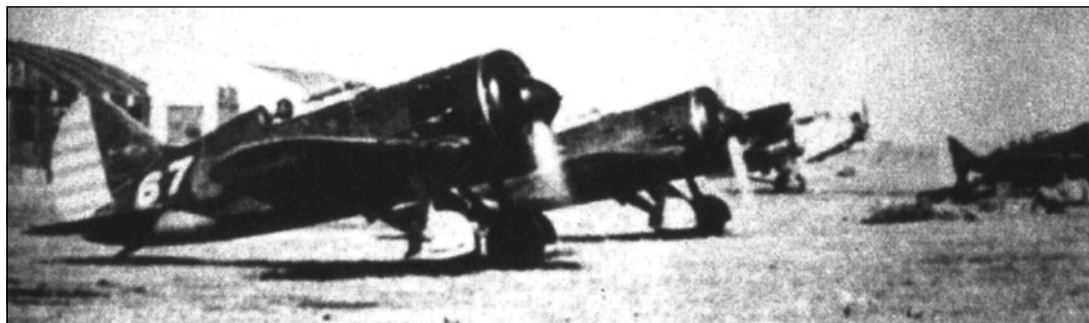
Loh's cultural sensitivity and interpersonal skills also earned him a posting as liaison officer to the Soviet 'volunteer' pursuit group in Nanchang in late 1937. While attached to the unit, he struck up a friendship with the Soviet group leader Alexei S Blagoveshchenskiy. The latter organised seminars for his men where Loh would share his combat experience. He also had Loh fly with his pilots, taking them out on orientation flights and navigation exercises. Finally, Blagoveshchenskiy had Loh serve as his wingman – a move that helped save his life during their first combat mission.

On 7 January 1938 the leader of the IJNAF's 12th Kokutai, Lt Ryohei Ushioda, led a fighter sweep over Nanchang. In response to this incursion, Blagoveshchenskiy and his pursuit group scrambled into the air, with Loh, in I-16 No 82, flying as his wingman. As the Polikarpov biplane fighters climbed for altitude, A5Ms dove on them out of cloud cover, attacking the rear of the formation. The enemy aircraft then climbed back up into the clouds. This was repeated three times, and on each occasion an I-16 was shot down. Two of the Soviet volunteer pilots, 1Lt K E Zabalaev and Lt I I Potapov, were killed.



'A Japanese aviator taken prisoner in 1937' read the caption that accompanied this photograph in a Chinese newspaper in September 1937. Comparison with Japanese photographs reveals similarities between this individual and Lt Shichiro Yamashita, who was shot down near Nanking by Loh, Ying-teh on 26 September while on a lone reconnaissance mission in an A5M. This was the first confirmed CAF victory over the Mitsubishi fighter, although it was kept a secret for 30 years after Loh convinced Yamashita to support the Chinese cause by helping to break IJNAF tactical codes and interpret intelligence. This defection was one of the untold secrets of the Sino-Japanese War

I-16s of the Russian Volunteer Pursuit Group based at Nanchang sporting the black nose characteristics of those built at the Moscow Factory 39. The large two-digit side numbers were instituted by group leader Alexei Blagoveshchenskiy following CAF practice





Alexei S Blagoveshchenskiy, Hero of the Soviet Union and Russian Volunteer Pursuit Group leader, is seen here with Loh, Ying-teh during an outing to a park in Nanchang. Pilots from the Soviet Union were referred to as 'Russian' volunteers by the Chinese Nationalist Government, as 'Soviet' was a sensitive term because of the armed insurrection by the Chinese Communists, aka 'Soviets'. Loh served as a liaison officer to the group and flew as Blagoveshchenskiy's wingman. The two became close friends, especially after Loh saved Blagoveshchenskiy's life when he shot the A5M flown by Lt Ryohei Ushioda off the Russian's tail during the group's first action over Nanchang on 7 January 1938. After Blagoveshchenskiy returned to the Soviet Union, the two men were unable to communicate with each other because of the political situation. Blagoveshchenskiy led a group of test pilots in an unsuccessful attempt to capture an American F-86 fighter during the Korean War. Much later, Loh served as ambassador to the Republic of Korea. In the late 1980s, Loh, who was terminally ill with cancer, corresponded with the author. He expressed the wish to contact his old friend in the Soviet Union, which was opening up to the West at the time. The author was able to locate Blagoveshchenskiy, but only after Loh had passed away. Blagoveshchenskiy expressed regret that he was not able to contact his old friend, but he sent this photograph, which the author passed on to Koh's family (Alexei S Blagoveshchenskiy via author)

of his Soviet compatriots and bottles of champagne being uncorked. Blagoveshchenskiy and Loh both travelled to the crash site to examine the wreckage, where they discovered that the Japanese fighter was an A5M2b model with a sliding canopy. The pilot was identified as Lt Ryohei Ushioda – Blagoveshchenskiy found his pistol in the wreckage and gave it to Loh as a souvenir.

In May 1938 Loh took command of the 21st PS/4th PG, which was equipped with I-16s. On the very last day of that same month the IJNAF mounted a raid on Hankow, sending in 18 G3Ms escorted by 35 A5Ms. Defending the city were four I-15bis from the 3rd PG, eight I-15bis and six I-16s from the 5th PG, and 21 I-15bis flown by Soviet volunteer pilots. A sprawling dogfight fought in and out of scattered cloud cover duly ensued, the Soviet pilots claiming six victories, the Chinese three and the IJNAF no fewer than 27! Actual losses were one I-16 (No 2107), with its pilot, from the 21st PS and a Soviet I-15bis (No 90) destroyed, although its pilot bailed out. The IJNAF had two A5Ms shot down and one pilot killed.

Loh claimed an A5M that he saw crash on the south bank of Lake Hou, northeast of Wuhan, several pilots agreeing that a Japanese pilot had bailed out of this aircraft – his parachute was seen descending 12 miles from She-kou.

12th Kokutai 15-victory ace PO3c Yoshimi Minami also force-landed on the banks of the Yangtze, from where he was rescued by a Japanese patrol boat. Minami's version of events was that his A5M had suffered battle damage that caused it to leak fuel. Eventually surrounded by 12 enemy aeroplanes, he rammed one of them, losing the left wingtip at the position of the red hinomaru national insignia. According to Spanish Civil War veteran and future seven-victory ace Anton Gubenko, he had spotted Minami's A5M limping along, having clearly suffered battle damage. The Soviet pilot then attempted to finish the IJNAF fighter off, but his guns either jammed or he found that he had expended all of his ammunition. Flying in close formation with the A5M, he signalled to its pilots to turn around and head back to Hankow. The enemy aviator refused, so Gubenko used the propeller of his I-15bis to cut off the left wingtip of the A5M. The Japanese aircraft fell away and crashed minutes later, although Gubenko was able to fly his damaged biplane back to base and make a safe landing.

On the morning of 26 June 1938 Gubenko claimed two JAAF Kawasaki Ki-10 biplane fighters shot down over Nanchang. JAAF records show that four Ki-10s from the 10th Independent Chutai had chased Chinese SB-2 bombers back to Nanchang. Two biplane fighters had indeed been downed and their pilots killed. Gubenko was the only one to claim victories during this action. That afternoon, again over Nanchang, Gubenko was attacked by IJNAF A5Ms and forced to bail out.

The IJNAF returned to Nanchang on 18 July when the 15th Kokutai despatched 14 D1A2 dive-bombers, five Yokosuka B4Y Navy Type 96 carrier attack aeroplanes and six A5Ms as escorts. At the very start of the engagement Lt Cdr Mochifumi Nango, fighter unit leader of the 15th Kokutai, made a diving attack on a biplane fighter the Japanese identified as a 'Gladiator'. Nango misjudged his approach, and his A5M (coded 10-118) collided with the CAF fighter. Nango, a well-respected ace with eight victories to his credit, crashed to his death in Lake Poyang. The 'Gladiator' was, in fact, an I-15bis flown by Soviet volunteer Valentin Dudonov. He had only realised he was under attack when bullets started bouncing off the armour plating fitted to the back of his seat. Before he could react, the A5M collided with his Polikarpov. Dudonov bailed out and landed on a sand bank in Lake Poyang, and when an A5M came in to strafe him, the Soviet pilot had to run in a zig-zag pattern to avoid being killed. After being strafed twice Dudonov dived into the water and hid below the surface until the A5M departed.

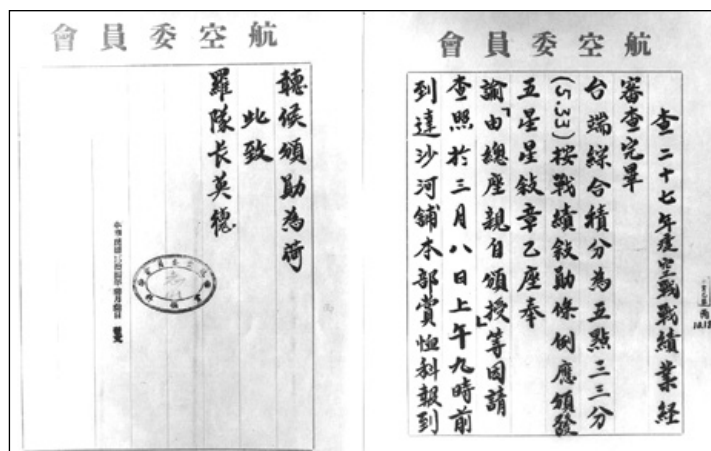
Loh had recently flown to Nanchang from another airfield with his wingman, Lt Han, Chan, to join the battle. There was a low undercast that day, and they spotted two IJNAF aircraft just below the cloud base. Loh closed in from behind and below and shot down one of them, noting the location of where it crashed. After landing he quickly drove to the spot to look for the wreckage. When he got there, Loh saw a group of workmen dragging the body of a Japanese pilot out of the water. The flightsuit was torn but part of the name could be made out. It said 'Nang. (missing character) Lieutenant' (南. 大尉). Loh arranged for the body to be buried, with the characters from the torn flightsuit pinned to the grave marker. This was, of course, Mochifumi Nango.



Russian Volunteer pilot Anton A Gubenko, Hero of the Soviet Union, fought in many of the major actions in 1938 but was noteworthy for two in particular. On 31 May he rammed the A5M of 12th Kokutai ace PO3c Yoshimi Minami, forcing him to crash-land. On 26 June Gubenko went to the aid of SB-2 bombers flown by Russian volunteers and shot down two Ki-10 fighters belonging to the 10th Independent Squadron. Seven-victory ace Gubenko, who was made a Hero of the Soviet Union for his service in China, perished in a flying accident on 31 March 1939 (*Alexei S Blagoveshchenskiy*)

Russian volunteer pilot Valentin Dudonov with Loh, Ying-teh in a photo taken at Nanchang by Alexei Blagoveshchenskiy. Dudonov, in a Western suit and hat, is contrasted by Loh in his 'Chungshan' or 'Sun Yat-sen' suit made popular by the Father of the Chinese Republic. Loh is credited by Chinese historians with shooting down the IJNAF ace Lt Mochifumi Nango, known as the 'Gunshin' (Battle God). However, Japanese accounts revealed that Nango had collided with a Chinese 'Gladiator' fighter over Nanchang on 18 July 1938. In correspondence with the author, Loh indicated that he had found Nango's body while searching for the wreckage of an aeroplane he shot down over Lake Poyang. He assumed that Nango was the pilot of the fighter he had downed. Another eye-witness account published in a San Francisco Chinese newspaper reported that a Soviet volunteer pilot (in an I-15bis) survived a collision with an IJNAF fighter during this action over Nanchang. Since Blagoveshchenskiy was the commander of the Soviet volunteer fighter group based at Nanchang during the period, it was natural to ask if he knew about this incident. Not only did he provide the name of the Soviet pilot involved in this incident (Dudonov), he also sent a photograph of him with Loh, helping to bring closure to this decades old mystery (*Alexei S Blagoveshchenskiy via author*)





A 1939 telegram from the Aviation Commission informing Loh, Ying-teh that he was to be awarded a Five Star Medal for 5,333 victories recorded during 1938. The telegram requested Loh to present himself at the Commission's office at Sha Ho at 0900 hrs on 8 March, where the Commander-in-Chief (Chiang, Kai-shek) would present him with the medal (Loh, Ying-the)

Loh believed that the body he had seen was the pilot of the aircraft he had shot down, and he kept his pistol as a trophy. He never actually claimed that he had shot down Nango, however. In subsequent post-war interviews he gave about this aerial clash, Loh indicated that he had shot down a 'light bomber' over Lake Poyang, rather than an A5M. The 'light bomber' would have been a D1A2 dive-bomber from the 15th Kokutai.

Dive-bombers of the 1st Chutai, 15th Kokutai distinguished

themselves during this action by accurately targeting CAF aircraft parked on the airfield at Nanchang, including two SB-2 bombers. However, the 1st Chutai did not have everything go its way, as two dive-bombers from the No 3 Shotai were lost during this action. According to the crew of the No 2 aeroplane in the formation, the lead aircraft (tail code 10-236) disappeared after being engaged by two 'Gladiators'. These were actually I-15bis from the 8th PS/3rd PG flown by Capt Lu, Kwang-chiu and Lt Mo, Ta-yan. They attacked a D1A2 and saw it crash next to a farmhouse on the banks of Lake Poyang.

Both pilots had exhausted their ammunition in this attack, but neither of them knew this. Lu and Mo then flew alongside the second D1A2 (tail code 10-239) in an attempt to draw fire so that one of them could attack the dive-bomber and finish it off. The IJNAF gunner was almost certainly out of ammunition too, for he never fired on either I-15bis. This bizarre standoff continued until the Chinese pilots ran low on fuel and had to break off. Perhaps Loh had chanced upon this group and attacked D1A2 10-239, causing its crew to ditch in the lake – they were rescued by a destroyer.

More than a year later, on 26 August 1939, Loh led three I-15bis from the 21st PS on a night interception mission over Chungking. With the help of searchlights, he was able to attack a G3M on the left side in a flight of three. The muzzle flash from the CAF fighter's 7.62 mm ShKAS machine guns in the nose obscured the target and Loh had a hard time aiming. I-15bis flown by Soviet volunteers were also in the air at the time, and, observing Loh's attack, they joined in. Together, they knocked a G3M out of formation and sent it plunging earthwards. This was probably the action in which Loh was credited with a third of a victory during the aerial defence of Szechuan. He ended the war with a total of 5,333 victories, which earned him the award of a Five Star Medal.

Chu, Chia-hsun (朱嘉勋)

Chu, Chia-hsun was originally from Kweilin, in Kwangsi, although he grew up in more prosperous Canton where he lived with his uncle. In 1934, while on a visit home before entering Chungshan University in Canton, Chu read in the newspaper that the Kwangsi Aviation Academy was recruiting. He applied for and was accepted into Class 1 of the Academy. Chu was described by his colleagues as being tough both

physically and mentally. He had represented his province as a distance runner and was never shy about speaking his mind. Loud and sometimes aggressive, Chu was nicknamed 'Crazy Chu' for the number of fights he got into. However, he was also well respected for his loyalty to friends and willingness to stand up for the little guy being bullied.

The Kwangsi faction had fought on the losing side in the Great Plains War, after which there was an uneasy truce with the Central Government. Building an air force was a move to counter the growing strength of the Central Air Force, and initially help was sought from the British. However, the JAAF stepped in with an offer to provide aircraft and training. The Kwangsi Provincial Government's acceptance of this offer was extremely unpopular with the Kwangsi Aviation School cadets, as anti-Japanese sentiment was strong amongst them following the annexation of Manchuria. Many of the students, including Chu, were suspicious of the intentions of their leaders.

Three months before graduation, Chu and three others were selected to go to the JAAF's Akeno Academy in Japan for advanced training. They were followed a year later by eight more Kwangsi Aviation cadets. While at Akeno, Chu trained under instructors that included future aces Tateo Kato and Tamiya Teranishi – four years later Chu would actually meet these two instructors in combat near Kwei-the, in China. Chu had noticed that the training of the Chinese cadets differed from that of their Japanese counterparts, the former not being allowed to see certain training manuals. Chu befriended Japanese cadets, loosened lips with sake and purloined some of the restricted materials, including a gunnery manual. These were translated and used in training back in the Kwangsi Aviation Academy.

In November 1937 the original 3rd PG, which had suffered heavy losses in Nanking, was reorganised. The original 7th and 8th PSs were disbanded, with the remaining personnel posted to other units. Two Kwangsi pursuit squadrons were sent north to convert to Soviet-supplied I-15bis and be reorganised into the new 7th and 8th PSs of the 3rd PG. The commanders of both squadrons and most of the flight leaders were pilots trained in Akeno. Lt Chu was the deputy commander of the 7th PS.

Interestingly, the markings of the I-15bis in these units did not follow the normal practices of other Central Air Force squadrons of the period. Descriptions from the pilots noted that there were no large aircraft numbers on the side of the fuselage. Pilots used chalk to apply personal markings – unfortunately, no photographs survive of these improvised markings.

In early 1938 the new 7th and 8th PSs were sent to support Chinese forces fighting in the south of Shantung Province. On 8 March 14 I-15bis (seven from each squadron) bombed and strafed Japanese positions near Teng County. On their way back to the forward base at Kwei-teh, Chu spotted two JAAF Mitsubishi Ki-2 twin-engined bombers from the 6th Daitai (battalion).

Blessed with exceptional eyesight, Chu would often spot enemy aeroplanes long before anyone else. In this case, Chu tried to attract the attention of the group commander, Lt Col Wu, Yu-liu. When Wu was slow to respond, Chu broke formation and headed for the Japanese aeroplanes. He attacked the lead bomber and sent it down in flames before the rest of the group had arrived. Wu then led the attack on the second bomber, which crash-landed in a field. The crew of the first Ki-2 to crash were killed, but two of the three in the second machine survived with wounds – a gunner in



Kwangsi pilot Wei, Ting-shih stands in front of I-16 No 2423 in June 1941. Wei had fought with the Kwangsi contingent, which was assigned to the 3rd PG (7th and 8th PSs) in 1938. Wei flew with the 7th PS, and was probably responsible for shooting down JAAF ace Lt Kawahara after he had attacked Lt Col Wu, Yu-liu, CO of the 3rd PG, over Kwei-teh. Wei was then surrounded and shot down by other JAAF Ki-10 fighters. He bailed out wounded and survived being strafed while he descended in his parachute. After recovering from his wounds, Wei was assigned to the 17th PS/5th PG, flying the D.510. He later transferred to the 26th PS/5th PG, equipped with I-16s. In the summer of 1940 the Chinese pooled all of their operational I-16s from the 7th PS/3rd PG, 24th PS/4th PG and 26th PS/5th PG into one squadron. This was the reason why Wei was flying a 24th PS aircraft in 1941. On 22 May 1941 Kao, You-hsin scored a solo victory against a Mihoro Kokutai G3M over Chung Chuan Chun airfield in a 24th PS I-16

the second bomber had been killed in the action, but not before he had damaged Wu's I-15bis. Wu flew back to Kwei-teh, but he had to land short of the airfield.

Later that same day three other 7th PS I-15bis attacked a JAAF Kawasaki Army Type 88 two-seat reconnaissance biplane from the 1st Daitai. Its pilot led the Chinese fighters in a low altitude chase over Japanese lines, and ground fire damaged all three biplanes and wounded one of the pilots. The Type 88 eventually crash-landed, killing the observer. These attacks by the 3rd PG came as an unpleasant

surprise to the JAAF, which had not been challenged in the air in this area for some time.

The next time the 3rd PG staged a ground attack mission out of Kwei-teh, on 25 March, 19 Ki-10 fighters from the 2nd Daitai, led by Maj Tamiya Teranishi, were waiting for them. Japanese accounts of the action that ensued included the exact composition of the units encountered – 14 I-15bis from the 7th and 8th PSs of the 3rd PG. This suggests that the highly efficient Japanese Army Intelligence Service had either intercepted communications and/or had agents operating near Chinese airfields.

The I-15bis bombed and strafed Japanese artillery position and a field headquarters at Chao-chuang Primary School without encountering any aerial opposition. However, as the Chinese pilots were descending to land at Kwei-teh the Ki-10s attacked. Low on ammunition and fuel, the 3rd PG was at a great disadvantage. Six of the I-15bis were shot down and three pilots killed. A Beechcraft Model 17 Staggerwing that had transported the groundcrew to Kwei-teh was also strafed and set on fire. The 8th PS, which was at the rear of the formation providing cover for the 7th PS as it landed, was attacked first. A flight leader in the 8th PS, Lt Tseng, Ta-chi, recalled tangling with a Ki-10 sporting three red command stripes. The pilot of the JAAF fighter was none other than Capt Tateo Kato, the chief instructor at Akeno when Tseng had trained there!

One Ki-10 failed to return, the pilot, nine-victory ace Lt Kosuke Kawahara, being killed. Having already destroyed two I-15bis, he was going after a third when he was himself attacked and shot down. The sequence of events suggests that Lt Wei, Ting-shih, wingman of group commander Lt Col Wu, may have downed Kawahara.

Wu and his two wingmen, in the leading flight of the 7th PS, were descending to land at Kwei-teh when Wei spotted that I-15bis from the 8th PS were in a dogfight with a flight of Ki-10s that had bounced them from above and behind. Wei pulled abreast of his flight leader, opened fire with his guns to attract his attention and then pulled up into a chandelle. Coming around, Wei saw that his group commander was under attack. Turning and diving onto the tail of Wu's assailant, Wei fired at close range and shot the Ki-10 down in flames, but not before Wu's

I-15bis had been damaged. Its fuel tank had been hit, resulting in the engine eventually quitting as Wu tried to land. The I-15bis clipped telephone lines near the airfield and overturned on landing. Although Wu twisted his back in the hard landing, he survived. Wei was then attacked by more Ki-10s and his I-15bis caught fire. Already wounded in the left leg, he bailed out. While descending in his parachute, he was strafed by the Japanese, wounding him in the right arm. Wei survived by playing dead. Two other Chinese pilots were not so lucky, being strafed and killed while descending in their parachutes.

Chu, who did not take part in this mission, vowed revenge for his fallen comrades. On 10 April he got the chance. The Japanese Army had suffered a reverse in the battle of Tai-er-chuang and it was pulling out, pursued by Chinese forces. A number of strategic bridges had been blown, thus trapping Japanese troops. For three days the 3rd and 4th PGs sortied aeroplanes to bomb and strafe the enemy's trapped motorised columns.

On the 10th seven I-15bis from the 3rd PG were joined by eleven from the 22nd and 23rd PSs of the 4th PG in an attack on a Japanese column retreating to Chao Chuang. Their bombing and strafing passes scattered horses and caused numerous casualties. On the return flight the seven I-15bis from the 3rd PG took the highest cover position at an altitude of 14,800 ft, the five biplane fighters from the 22nd PS were at 13,100 ft and the six aircraft from the 23rd PS were at 11,500 ft. Flying over Ma Mu Chi, near Kwei-teh, the Polikarpovs were attacked by the 2nd Daitai, which was again being led by Maj Teranishi. This time, the 18 Ki-10s were reinforced by three new Nakajima Ki-27 monoplane fighters, one of which was flown by Capt Tateo Kato.

The main Japanese formation of 17 aeroplanes charged head-on at the Chinese fighters, climbing from a lower altitude of 9850 ft. The 4th PG was soon embroiled in an intense series of dogfights with the JAAF aeroplanes, although the 3rd PG contingent, led by Capt Lin, Tsuo, climbed up to 18,500 ft so as to avoid being bounced by more Japanese fighters. Sure enough, once they reached this altitude they found four more JAAF fighters waiting to pounce on unsuspecting Chinese pilots from above. While Lin and two wingmen kept the Japanese top cover busy, the commander of the 7th PS, Capt Lue, Tien-lung, led Chu and two others back down to join the fight below them.

While Chu was attempting to get onto the tail of a Ki-10, he saw a Ki-27 dive down from above on an unsuspecting I-15bis. Chu in turn went after the Japanese monoplane, which was rapidly closing on its target. He opened fire and hit the Ki-27, which did not pull up from its dive and crashed into the tail of the I-15bis. The JAAF pilot, Sgt Resaburo Saito, was killed, while the pilot of the I-15bis, Lt Chen, Huai-min from the 23rd PS, managed to bail out. Chu then had

Wreckage of the Ki-10 flown by Lt Yonesuke Fukuyama during the second aerial battle of Kwei-teh on 10 April 1938. Flying with the main body of the JAAF's 2nd Daitai formation, led by Capt Morimoto of the 2nd Chutai, Fukuyama attacked the lowest of the three Chinese formations (six I-15bis from the 23rd PS/4th PG) near Ma Mu Chi. He was in turn attacked from above and behind by other I-15bis – there were five from the 22nd PS/4th PG in a formation above the 23rd PS, as well as four I-15bis from the 3rd PG, flying top cover that all came down to join the action. Although badly wounded in the right arm and the left knee, Fukuyama managed to fly back to base by holding the joystick with his mouth while he bandaged himself. Crash-landing his Ki-10 at Ching Chow airfield, he had to be cut from the wreckage. Fukuyama later died in hospital, after which his fighter was returned to Japan and put on display (Photo courtesy of Minoru Kamada)





These Nakajima Type 91 fighters of the Kwangsi Air Force have been marked in the unique provincial air force scheme that consisted of a vertical red stripe on the fin and four blue and four white horizontal stripes on the rudder. The national roundel of a white sun in a blue disc was carried on the wings. However, during the Kwangting-Kwangsi Crisis, a large black triangle was added to distinguish the Kwangsi aircraft from those of the Central Air Force. All remaining operational Type 91s were assigned to the 32nd PS following the integration of the Kwangsi Air Force into the Central Air Force. The aircraft nearest to the camera, which has the side number 506, was one of four Type 91s that engaged IJNAF floatplanes when they attacked Nanning, in Kwangsi, on 8 January 1938. This was believed to be the only occasion Japanese-built aircraft fought each other during World War 2

to fight off attacks by multiple Japanese fighters, which resulted in the engine cowling of his I-15bis being shot away. He eventually force-landed in a wheat field, as did four other Polikarpov fighters that had also suffered battle damage or run out of fuel. All were later recovered. One of the pilots, Lt Tsang, Ta-chi, was even able to make repairs to his I-15bis using improvised materials. He then had fuel delivered by truck and flew back to Kwei-teh.

The 3rd PG lost one I-15bis and its pilot and the 4th PG lost three fighters and had one pilot killed. Aside from the Ki-27 downed by Chu, two Ki-10s force-landed behind Chinese lines. Three more biplane fighters crash-landed upon returning to base. Lt Yonesuke Fukuyama, flying one of the latter machines, had been hit in the right arm and left leg. He flew part of the way back to his airfield at Ching Chow holding the control column with his teeth. Fukuyama crash-landed and had to be cut from the fuselage. He later died of his wounds.

Having lost one fighter and had several more badly shot up during the fighting around Kwei-teh, the 3rd PG was only able to send four I-15bis to help defend Hankow against a big attack mounted by the IJNAF on 29 April. Chu was at the controls of one of these machines, which joined up with six Polikarpovs led by Capt Chen, Tse-liu, commander of the 17th PS/5th PG. The Chinese fighters managed to get amongst the G3M bombers, and Chu claimed one destroyed southeast of Wuchang. Two examples crashed near here on the 29th, although Chu was far from alone in claiming a bomber victory in this location on that date.

On 6 May Chu led three I-15bis as escorts for a similar number of SB-2 bombers from the 2nd BG that were targeting an IJNAF airfield on San Tsao Island, off the coast of Canton. Taking off at 0630 hrs from Canton, the I-15bis, each carrying four small 22-lb bombs, rendezvoused with the bombers over Hsin-hui and then headed for the enemy airfield. Upon their arrival over the target the group was met with heavy flak, but they could see no aircraft on the ground. The SB-2s and the I-15bis dropped their bombs on airfield buildings instead, before heading home.

In June Chu was promoted to command a third ex-Kwangsi Air Force squadron, the 32nd PS, the veteran pilot returning to Liuchow, in Kwangsi, to supervise the conversion of the squadron to Gloster Gladiators. The 32nd PS had originally flown Nakajima Type 91 parasol wing fighters that had been supplied by the Japanese, seeing action with the obsolete machine on 8 January 1938 when the unit engaged IJNAF E8N floatplanes that were attacking Nanning. The Japanese machines had been launched from the seaplane carriers *Kagu Maru*, *Kamoi* and *Kamikawa Maru*, as well as the cruisers *Myoko* and *Tama*, while the vessels sailed off the coast of Kwangsi.

Two separate attacks were made on Nanning, one in the morning by 14 floatplanes and another in the afternoon by 13 examples. The 32nd PS only had five operational Type 91 fighters to intercept the morning raid. Badly out-numbered, the Type 91s were attacked by multiple E8Ns serving as escorts for bomb-carrying examples of the same floatplanes. One Type 91 was shot down, its pilot being strafed and killed in his parachute after he had successfully bailed out. Two Type 91s managed to

damage one of the E8Ns, however, the floatplane heading back out to sea trailing fuel. During the afternoon raid the four remaining Type 91s damaged a second E8N, killing the observer. Its pilot again managed to fly out to sea, although this time he was forced to bail out – he was rescued by another floatplane shortly thereafter. The wreckage of the E8N washed ashore and was shipped to Nanning for display.

After completing conversion training, Chu led the 32nd PS north to join in the defence of Hankow. On 3 August he and four squadronmates were part of the large Sino-Soviet formation of 52 fighters sent aloft to intercept an incoming raid of 18 G3Ms escorted by 29 A5Ms. The fighter group had originally been led by Lt Col Wu, Yu-lou in an I-15bis, but the Soviet biplane struggled to keep up with the Gladiators and I-16s, so Chu took over the lead position. Seeing I-16s of the 26th PS dogfighting A5Ms, Chu led his Gladiators into the fray. First, he went after an IJNAF fighter chasing an I-16. Attacking from above and behind, Chu fired too soon and missed his target. Seeing a second I-16 pursued by another A5M, Chu repeated the approach, attacking from above and behind. This time, however, he waited until he was well within range before opening fire. The A5M was hit in the wing tanks and descended streaming fuel vapour. All four Gladiators from the 32nd PS returned safely.

Later the same month the 3rd PG commander, Lt Col Wu, led the 32nd PS south to Nan Hsiung, in Canton, to bolster the air defences of the region.

At 0940 hrs on 30 August the air raid warning network phoned in a report of nine Japanese bombers crossing from Fukien Province towards Chen Chow airfield in Huan Province, north of Nan Hsiung. Wu led all nine available Gladiators north to intercept. Since the 3rd PG commander had only recently converted to the Gloster fighter, Chu assigned two of his more experienced pilots – the deputy squadron commander and a flight leader – to be his wingmen. The Japanese bombers, which were probably G3Ms flying from Taiwan, attacked Chen Chow at 1030 hrs and then turned for home before the Gladiators arrived.

Having missed the bombers, the CAF pilots headed back in the direction of Nan Hsiung. As they approached the airfield, Chu and his wingmen spotted five D1A2 dive-bombers, and their six A5M escorts, in the final throes of an attack. Flying from the carrier *Kaga*, the Aichis had bombed the airfield at 1040 hrs – just prior to the return of the Gladiators. Shortly thereafter, a second group of 18 IJNAF aeroplanes (probably from the 14th Kokutai, based on San Tsao Island) attacked nearby Shao-kwan airfield.

By the time the Gladiators arrived over Nan Hsiung at 12,000 ft the dive-bombers had already completed their bombing runs. Once again it was the sharp-eyed Chu who spotted the enemy first. He pulled his Gladiator abreast of Wu and frantically pointed towards the Japanese formation of six A5Ms to the right and at a lower altitude. Wu gave the signal to attack, the Gladiators diving on the Mitsubishi fighters and the formations disintegrating into a series of individual dogfights. Chu was the first to attack, and within three minutes of the start of the action he had sent one of the A5Ms down in flames.

The agile D1A2s, now free of their bomb loads, also joined in the fight. With scattered clouds overhead the airfield, the opposing pilots used them to either escape an attack or to mask the pursuit of an enemy.

Flights became separated, with wingmen being unable to cover their leaders as they came under attack themselves. One of Chu's wingmen, Lt Wei, Shan-mou, was forced to bail out early on in the battle. Strafing in his parachute, he was saved from certain death when flight leader Lt Wei, Ting-lich drove off the A5M before it could make a second pass.

One A5M pilot took full advantage of the cloud cover, attacking Lt Col Wu from above and behind while he was in turn chasing a D1A2. Wu's Gladiator was hit hard, bursting into flames, and he crashed to his death.

The odds were now definitely stacked against the out-numbered Gladiators. Japanese after-action reports detailed how multiple D1A2s teamed up with A5Ms to attack individual Gladiators. Lt Tang, Hsin-kwang was also shot down by an A5M, although he parachuted to safety. His flight leader, Lt Wei, Ting-lich, claimed a 'bomber', although moments later the rear gunner of a D1A2 hit his Gladiator with an accurate burst of fire that set the biplane fighter alight. Wei also had to bail out.

The Gladiators had flown quite some distance trying to intercept the earlier raid, and they began running low on fuel as the battle dragged on. Chu, however, was able to account for another A5M before his engine quit from fuel starvation. Making a dead-stick landing in a rice paddy, Chu was thrown out of the cockpit when the Gladiator's wheels sank in the mud and the fighter nosed over. Landing on his head, fortunately in the soft mud, he was only slightly injured. Deputy squadron commander Lt Ma, Yu-hsin was not so fortunate. Performing a dead-stick landing in a river bed, Ma was also thrown from the cockpit when his Gladiator nosed over. Landing on hard rocks, Ma broke both legs and bled to death. Lt Yang, Yung-chang, who had claimed an A5M damaged 'streaming white vapours', managed to force-land in a field and suffer only minor injuries. Of the nine Gladiators sent aloft, only two returned safely to an airfield.

Kaga's operational records indicate that two A5Ms were lost with their pilots. One of those individuals was Lt Teshima, leader of the A5M escort during the mission. All four of the surviving fighters were hit, one 25 times and another ten times. No D1A2s were lost, but one was hit 16 times. The Chinese, however, reported finding three wrecks – two A5Ms, one near Nan Hsiung and a second near Shao-kwan, and an unidentified type in Nan Hsiung that had three bodies onboard. This number of crewmen would suggest a carrier attack aeroplane, although *Kaga* did not commit any to the mission. Four B4Y carrier attack aeroplanes were launched, however, to help guide the returning aircraft to the No 6 airfield on San Tsao Island, and none of these saw action. Perhaps one of the aeroplanes attacking Shao-kwan at around the same time got mixed up in the action near Nan Hsiung.

In early 1939 Chu handed over command of the 32nd PS to Capt Wei, Yi-ching, who had shared in the destruction of an E8N over Nanning while flying a Nakajima Type 91. Chu was assigned to various training posts, supervising pilot transition onto Soviet-supplied aircraft and writing training manuals. When Chu requested a transfer back to an operational unit, there were no suitable positions available. The CAF had by then been decimated following the appearance of the Zero-sen fighter, and the Soviet Union had stopped supplying China with combat aircraft.

Liu, Che-sheng (柳哲生)

Liu, Che-sheng was born in 1914 in Hopeh Province but his family was originally from Li Ling, in Hunan. In 1931, Liu decided to enroll in the Military Academy following the invasion of Manchuria. Three years later he transferred to Class 5 of the Central Aviation Academy, and in 1936 Liu received a commendation from Chiang, Kai-shek himself for academic excellence. Following graduation Liu was assigned to the 21st PS/4th PG.

During the 14 August 1937 action over Schien Chiao, Liu, flying Hawk III No 2102, shared in the destruction of a Kanoya Kokutai G3M with his flight leader Lt Li, Kuei-tan and his wingman Lt Wang, Wen-hua. The following day, Liu joined in the morning action against the *Kaga* carrier attack aeroplanes. He claimed a B2M, but his Hawk III was hit in the fuel tank by return fire and he landed at Chiao-shi airfield. A second formation of B2Ms from the *Kaga* arrived and bombed Chiao-shi shortly after Liu had climbed out of his aeroplane. Fortunately, Liu was not hurt and his fighter escaped unscathed. His flight records indicate that he received credit for a 'third of a victory' for the B2M.

The following month the 21st PS was sent to Lanchow to convert to Soviet-supplied I-16s.

On 18 February 1938 the IJNAF's 12th and 13th Kokutai despatched 11 A5Ms as escorts for 15 G3Ms from the Kisarazu Kokutai that were targeting Hankow. The 4th PG scrambled 11 I-16s from the 21st PS, 14 I-15bis from the 22nd PS and eight I-15bis from the 23rd PS to intercept them. Liu and the 21st PS contingent led by Capt Tung, Ming-teh took off from Hankow at 1310 hrs and climbed towards the northwest to their patrol altitude of 9850 ft. The 22nd PS, led by the 4th PG's CO, Maj Li, Kuei-tan, took off at 1300 hrs and climbed towards the southeast to its assigned altitude (also 9850 ft). While they were still climbing through 5000 ft, the 22nd PS was attacked by 11 A5Ms. It would appear that the six I-15bis at the front of the formation were attacked by two shotai (led by future ace Lt Tadashi Kaneko) of the 12th Kokutai, while the Chinese fighters at the rear of the 22nd PS formation were attacked by two shotai from the 13th Kokutai.

Maj Li pulled into a steeper climb to evade the initial attack, but his I-15bis was badly hit. While trying to land at Hankow, the fighter suddenly caught fire and crashed, killing the pilot. The remaining three aeroplanes in the flight were also hit, Lt Ba, Ching-cheng in the No 4 machine being shot down and killed and the other two I-15bis returning to base badly damaged. Two Polikarpovs in the flight following behind Li were also shot down, Capt Liu, Chi-han, commander of the 22nd PS, claiming to have downed one of his attackers before his engine was hit and he had to bail out. Two A5Ms strafed him in his parachute, although he escaped being hit by feigning death. Capt Liu's wingman, Lt Wang, Yi, was not so lucky, for he was killed. It would appear that Liu and Wang were attacked by two A5Ms from the 12th Kokutai's No 2 Shotai. NAP3c Aiorora Sao, who was flying as the wingman in the Shotai, reported attacking

Liu, Che-sheng stands in front of his I-16 at Hankow in 1938. Note that the previously large fuselage number favoured by the CAF pre-war has been replaced by a considerably smaller aircraft number on the fin. The engine cowlings of this machine also appears to be green rather than black. According to Russian accounts, only the I-16s produced at the Moscow Factory 39 had black cowlings. There is also documentation to suggest that the CAF requested fighters destined for China have their black cowlings painted green





**Liu, Che-sheng poses with I-15bis
2109/P-7163 *Tan Hsiang Shan Hua*
Chiao (Honolulu ex-Patriot Chinese)
at Kwang-yang-ba in July 1939**

a flight of two I-15bis shortly after passing another group of Chinese fighters head-on.

The eight I-15bis from the 23rd PS, led by Capt Lue, Chi-chun, arrived from nearby Hsiao-kan and joined in the melee. However, the A5Ms still had the upper hand, as the IJNAF pilots from the 13th Kokutai managed to keep their flights together and attack in units of three. The CAF squadrons, on the other hand, tended to become separated, resulting in numerous reports of Chinese pilots being isolated and attacked by three A5Ms that were fighting together. Indeed, the commander of the 23rd PS, the experienced Capt Lue, Chi-chun, was shot down and killed by a trio of enemy fighters, whilst his flight leader, Lt Wang, Yu-kun, was forced to crash-land after his engine had been disabled by three A5Ms attacking together. Finally, two I-15bis from the 22nd PS collided, killing Lt Li, Peng-hsiang, and forcing the second pilot to bail out. They were being pursued by IJNAF fighters at the time.

The tide of the battle was eventually turned when the 21st PS entered the fray, its pilots catching A5Ms of the 12th Kokutai from behind while they were busy attacking the 22nd PS. Two of the three Mitsubishi fighters in the No 1 Shotai were shot down and their pilots killed. Both A5Ms in the No 2 Shotai were also hit, one of which soon crashed, killing its pilot. NAP3c Aiorora Sao, in the second fighter, was badly wounded in the chest and hip, although he made it back to base. Sao reported that he had been hit from above and behind after shooting down one of a pair of I-15bis.

Lt Liu, Che-sheng's performance stood out during this action, for after a solo victory he had shared in the destruction of a second A5M with his squadron commander, Capt Tung, Ming-teh, another 21st PS pilot, Lt Yang, Ku-fan, and Lt Liu, Chung-wu of the 23rd PS. Two more A5Ms were shared between three and four 21st PS pilots, respectively.

On 31 May Liu shared in the destruction of another A5M over Hankow, receiving a 'half' credit. By the end of 1938 his score stood at 2.333 victories. Liu was also active during the defence of Chungking from 1939 to 1941, his exploits being described in Chapter 5.

CHINESE-AMERICAN ACES

After the Japanese invaded Manchuria, Chinese communities across the United States and Canada organised themselves to support the Motherland. They recognised the importance of military aviation and raised funds to purchase aircraft and to train pilots. Some of the larger Chinatown communities in San Francisco, Los Angeles, Portland (Oregon), Chicago and New York even organised their own flight training programmes.

Of these, the most successful was the one in Portland. A Chinese-American doctor donated most of the funds needed to purchase a Fleet training aircraft, and instruction began at the Swan Island airfield in December 1931. Portland's Chinese flying school trained 29 pilots, two of whom became generals, four were killed in action and one, Hazel Lee, was killed in an accident while ferrying fighter aircraft as a US Women Airforce Service Pilot. Two, John P Y Wong and 'Art' S T Chin, became fighter aces.

The San Francisco Chinese community followed Portland's lead in 1933, establishing its own flying school in Oakland. One graduate, 'Buffalo' Sun Sui Wong, became an ace.

John Poon-Yeung Wong

John Poon-Yeung Wong, known in mandarin as Hwang, Pan-yang (黃泮楊), was born in Chungshan County in Kwangtung Province. His father brought him to Seattle, Washington, when he was six. When John was 12 his father decided to return to China, but an uncle persuaded him to let the boy stay in the US, John later moving to Portland. Here, he learned of the local Chinese flying school through a friend, Arthur ('Art') Shui-tin Chin.

Both John and 'Art' enrolled in Class 1 of the school, where all expenses were supported by the Chinese community in exchange for a commitment to return to serve in China. John and 'Art' received their US pilots' licences

A group photograph of the sponsors and students of the Oregon Chinese Flight School in front of its single Fleet trainer at Swan Island in Portland, Oregon ('Art' Chin via John Gong)





John Poon-Yeung Wong lived in the US and started his pilot training there, despite the fact he was actually born in China – he had moved to America with his father at an early age. After World War 2 and the fall of China to the Communists, Wong did not return to the US, settling in Thailand instead ('Art' Chin)

Cantonese Air Force pilots, including John Wong and 'Art' Chin, at a social gathering with their Luftwaffe instructors at Lagerlechfeld airfield in 1936. While in Germany, Wong and Chin took advantage of the multi-engined bomber training that was available after they completed their fighter training. This enabled Chin to have a second career as a transport and airline pilot after the war ('Art' Chin)



in April 1932 and were then sent to China. Since most Chinese-Americans were originally from Kwangtung Province, they naturally joined the air force of their ancestral province. After an abbreviated flying training programme and officers' training, both were commissioned as officers in the Cantonese Air Force.

In 1935 John and 'Art' were selected for advanced training with the Luftwaffe in Germany. The Kwangtung Provincial Government was negotiating with Germany for the purchase of a large number of combat aircraft at that time, including Heinkel He 111A bombers. John and 'Art' duly completed advanced fighter training at Lagerlechfeld, which included fighter tactics and gunnery. They were still in Germany when the Kwangtung-Kwangsi Crisis erupted. When they returned to China, both were commissioned into the Chinese Central Air Force and assigned to former Cantonese Air Force pursuit squadrons. John was given command of the 17th PS of the 3rd PG, which was equipped with Boeing 281s (an export version of the USAAC's P-26 'Peashooter'). The 3rd PG was tasked with the air defence of the capital Nanking, and the 17th PS was based at Chu-yung airfield, south of the city.

On 16 August 1937 G3Ms from the Kanoya Kokutai attacked Chu-yung, where the 17th PS was based. During earlier actions, the warning net had detected Japanese aircraft well in advance of their arrival. However, on the morning of the 16th, perhaps because of low cloud cover, it failed to pass on word of the approaching IJNAF aircraft until it was almost too late. This resulted in a mad scramble to try and get the Chinese fighters airborne. Fortunately, the Boeing 281 had a rapid engine start system, and all were able to get airborne just minutes before the Japanese raiders commenced their bombing runs.

Pulling up after takeoff, Wong saw three G3Ms making their attacking passes at low altitude (Japanese records say 650 ft) on the airfield. He made a climbing turn onto the tail of the Japanese formation and headed straight for the lead aeroplane. Approaching from the left rear of the twin-tailed G3M, Wong took full advantage of the left tail fin, which impeded the return fire from the Japanese gunners. His rounds hit the G3M in the left engine and wing tanks, sending it down in flames northeast of Chu-yung airfield. This was the lead aeroplane of the Command Shotai of the Kanoya Kokutai, commanded by Lt Cdr Nitta, one of the pioneers

of long-distance flying in the IJNAF. Nitta was killed, but some Japanese accounts suggest that he had survived the crash-landing of the G3M and committed suicide in order to avoid capture.

Pulling up after downing Nitta's G3M, Wong rolled to the right and went after the No 2 bomber in the Shotai. Once again, Wong concentrated his fire on the left wing. Hit in the left engine and wing tanks, the G3M, commanded by Lt(jg) Watanbe, descended, streaming smoke from the stopped

left engine and fuel vapours from the holed wing tanks. Thinking that this G3M was also a 'goner', Wong took on another group of bombers.

While the Kanoya Kokutai Command Shotai was fleeing northeast, the No 1 Shotai was headed towards Chu-yung from the same direction. Bad weather had caused the Japanese formation to disperse, and each Shotai had to find its own way to the target. Wong spotted another Boeing 281 flown by Chinese-American pilot Lt Wong, Tse-tsim chasing this flight, and he joined in. The G3Ms were fast, however, and it was tough going trying to close the distance. Wong got his chance when one of the

G3Ms circled back to run over the target again – either its bombs were hung up or it had passed the target before the bombardier could release his ordnance. Wong dived below the G3M and fired from close range into its belly. The left wing tanks caught fire and the bomber crashed 980 ft from the south gate of Chu-yung town. Ground observers reported two large explosions when the aeroplane's 550-lb land attack bombs detonated after the G3M hit the ground.

Wong claimed, and was awarded, three victories following this sortie, although Japanese records indicate that Lt(jg) Watanabe was able to regain control of his crippled G3M and nurse it back to base on one engine.

During the Shanghai fighting Wong flew numerous escort missions for Chinese bombers and fighter-bombers. The nimble IJNAF A2N and A4N biplane fighters that opposed these raids were tough opponents, with their lower wing loading than the Boeing monoplanes. Things did not get any easier for the CAF following the arrival of the fast and manoeuvrable A5M monoplane fighters. Indeed, during the Nanking battles of September 1937 Wong was only able to claim one floatplane 'damaged' on the 20th.

Wong also flew the single Curtiss Hawk 75 available to the Chinese in the defence of Nanking. This was a demonstrator aircraft that the Chinese Aviation Commission had purchased, and it was pressed into action for reconnaissance missions. Billy MacDonald, who was serving as an advisor to the CAF alongside Claire Chennault, was the other pilot who regularly flew the Hawk 75. Either he or Wong would hastily take off in it and head away from Nanking whenever there were reports of an incoming air raid. They also routinely used the aircraft to perform reconnaissance missions, often in search of Japanese aircraft



Boeing 281 fighters lined up at Chu-yung airfield in 1937. This was the only photograph of combat aircraft that survived in John Wong's extensive collection. He had left the photographs in the care of a friend in Hong Kong, which, as a British Crown Colony, was still open to the outside world prior to December 1941. When Hong Kong fell to the Japanese in late 1941 Wong's friend burned his photographs (*John Wong*)



All CAF squadron leaders carried a map case like this one, which originally belonged to 'Art' Chin and is now in the collection of his grandson, John Gong. According to John Wong, during the aerial battle over Nanking on 12 October 1937 his map case blew loose and struck him with great force in the face. Stunned and disoriented ('seeing stars' as he described it), Wong had to break off his attack until he could orientate himself. Having shot down an IJNAF A5M at the rear of the Japanese formation, he had spotted another enemy aircraft below. It was while diving down to attack the fighter that he was struck by the map case. 'Art' Chin kept a lot of souvenirs from his days in China, this collection being passed to his grandson when Chin passed away (*John Gong*)



John Wong and 'Art' Chin stand in front of an I-15bis christened *New York* in honour of the Chinese-American community that donated funds to support the purchase of the aircraft. Wong flew the I-15bis extensively while serving as commander of the 17th PS/5th PG and later as commander of the 5th PG. He never scored any victories in the I-15bis, however, even though he flew numerous missions in the type intercepting bombers over Szechuan Province in 1939. Note the leather flying suit Chin is wearing. This was tailor-made in the US and worn by Chin in many of his combat actions ('Art' Chin, courtesy of John Gong)

carriers. Some, but not all, the missions were mentioned in the official *Republic of China Air Force During the War of Resistance Against Japan* volume published by the CAF.

In correspondence with the author during the 1980s, Wong made a surprising revelation of an aerial victory claimed while flying the Hawk 75. He recalled that the engagement took place in October 1937 after a report of a Japanese reconnaissance aircraft had been phoned in from the air raid warning net. Two Hawk IIIs flown by Kao, Chi-hang and Yuan, Bao-kang were scrambled to intercept. Wong also took off in the faster Hawk 75 and reached the Japanese 'observation aeroplane' first. He described attacking it from below, firing a burst from the fighter's two guns and sending it crashing to earth before the Hawk IIIs arrived on the scene. This action would have taken place sometime in early October, after Kao had recovered from the wounds he had suffered on 15 August, and before the 12th, when Yuan was injured in a collision with a Japanese floatplane.

During the afternoon action on 12 October Wong led another Chinese-American pilot, Lt Wong, Tse-Tsim, into the air in the last two operational Boeing 281s to intercept a raid by nine G3Ms escorted by 11 A5Ms. Wong, in Boeing 281 No 1706, closed in on six fighters from behind that were providing close escort to the bombers, but he did not see the remaining five A5Ms following the formation. The close escort pilots may have mistaken the Boeings for the trailing A5Ms, with both types being monoplanes with fixed landing gear. Wong attacked the rearmost A5M and shot it down, Japanese records indicating that this machine was being flown by NAP1c Mazazumi Ino, the wingman of ace WO Tadashi Torakuma. Wong then spotted another Japanese aeroplane below and dived after it. Unfortunately, during the dive, Wong's map case broke loose and struck him in the face with such force that he 'saw stars'. Momentarily stunned, Wong had to abandon the attack and dive away – the middle of a dogfight was not a good place to be when you were disoriented.

In early November the 17th PS was withdrawn to Hankow and reassigned to the 5th PG. On 9 December the 17th PS was sent to Lanchow to receive new I-15bis fighters. Before setting out, Wong returned to Nanking on 3 December in Boeing 281 No 1706 to fly one more reconnaissance mission in the Hawk 75. CAF HQ considered these missions to be very valuable. Indeed, during one such flight on 11 November Billy MacDonald had found the Japanese carrier *Kaga* near the Chou-shan Islands, off the Chekiang coast. Three Northrop 2Es from the 2nd BG caught the carrier with its flightdeck full of aircraft, but all the ordnance dropped from a level run at 9000 ft landed in *Kaga's* wake. Two of the three Northrops were shot down by A5Ms scrambling from *Kaga's* flightdeck.

During the mission on 3 December Wong looked for Japanese aircraft at all the occupied airfields in the Shanghai area. The information was provided to SB-2 bomber units manned by Soviet 'volunteers', which were now beginning to arrive in Nanking. Wong was intercepted by two groups of Japanese fighters, but he easily eluded them in the fast Hawk 75.

In April 1938 Wong was promoted to CO of the 5th PG. Two months later he was in Shao-kwan Canton, where the 28th and 29th PSs, equipped with Gloster Gladiators, were based. Here, Wong was reunited with his old friend 'Art' Chin, now commander of the 28th PS.

On 16 June reports came in from the air raid warning net of nine Japanese aeroplanes crossing the coast at Swatow, heading northwest. At 1030 hrs nine Gladiators were scrambled, led by Wong in No 2909. He chose to have 'Art' in Gladiator No 2808 and Lt Teng, Chung-kai in Gladiator No 2908 as his wingmen. Patrolling at 13,000 ft, Teng was the first to spot the enemy – six G3Ms in two flights to the left and below at 11,000 ft. The bombers belonged to the Takao Kokutai, based in Taiwan, and they were on their way to attack Le Chang Station on the Canton-Hankow railway line. The leading flight was commanded by Lt(jg) Fumio Iwaya, who would later write *Chukoh*, a history of the medium attack aircraft flown by the IJNAF.

Wong signalled to the group to follow him, and he duly led the Gladiators down to attack the rear flight of three G3Ms, commanded by Lt(jg) Yoneda. Wong used his favourite attack approach, diving below Yoneda's G3M before pulling up to shoot at its belly. Chin, meanwhile, attacked the G3M to the left of the lead aeroplane. One of Wong's rounds must have hit a 130-lb bomb slung externally under the belly of Yoneda's G3M as the aeroplane suddenly erupted into a massive fireball. Wong's Gladiator was peppered with fragments, as were the remaining two G3Ms in Yoneda's flight. The explosion was so violent that Iwaya initially thought that his own aeroplane had been hit. Wong saw all three G3Ms diving into the clouds below, one of the bombers being little more than a mass of flames while the No 3 aeroplane on the right was in a 90-degree bank. Chin followed the No 2 G3M on the left of the Shotai, shooting until it too caught fire. The wreckage of two bombers was found close together in fields east of Le Chang.

Iwaya's flight fared better as it survived the attacks by the remaining six Gladiators. Indeed, their gunners even managed to shoot a CAF fighter down in flames, forcing the pilot to bail out. A second machine was force-landed with battle damage. All of the G3Ms were hit and one gunner badly wounded, yet despite leaking fuel they all made it back to Taiwan. Wong thought that all three bombers caught in the explosion had gone down, but one managed to pull out of its dive – only to be shot down by 'Art' Chin a short while later.



John Wong and members of the 5th PG come together for a group photograph in 1938 when he was serving as group commander. Sitting next to Wong on the left side in the photograph is fellow ace Yuan, Pao-kang (John Wong)

Gloster Gladiator I No 2909 sports the large side numbers in use up until early 1938. This was the aircraft John Wong flew on 16 June 1938 when he hit the bomb load of an IJNAF Takao Kokutai G3M near Nan Hsiung, causing the aircraft to explode





'Art' Chin in his Chinese Central Air Force uniform, onto which he had pinned his One Star Medal. Chin's mother was from Peru, hence his Eurasian features ('Art' Chin)

These were the last victories scored by Wong. Although he was in the thick of the action in Kwangsi and the air defence of Chengtu in 1939, he did not add to his score. The IJNAF raids on Chengtu were conducted at night, which made interceptions very difficult. In 1940 Wong entered staff college, and he later served overseas as air attaché at a Chinese embassy. He was awarded the Four Star Medal, despite his confirmed victory tally in the official CAF history being six.

'Art' Chin

Arthur 'Art' Sui-tin Chin (陳瑞錕 Chen, Rui-Tien in mandarin) was born in 1913 in Portland, Oregon. His grandfather was from Taishan County, Kwangtung Province, and had been stationed in Peru with the Imperial Chinese diplomatic service. 'Art's' mother was a Peruvian orphan that the Chins took in and raised in Portland, Oregon, where the family settled after leaving Peru. She later married 'Art's' father, which would explain his Eurasian features.

As described earlier in this chapter, 'Art' and John Wong received advanced fighter training in Germany. Because of their command of English and flight training in Portland, both were able to complete their fighter training early. They then decided to take the advanced multi-engined bomber conversion course too, which allowed 'Art' to fly transports and airliners after his fighter days were over.

After the Cantonese Air Force had been absorbed into the Central Chinese Air Force, Art was assigned to the 28th PS/5th PG as its deputy commander. The 28th PS was sent from its home in Nanchang to bolster the air defences of Nanking on 15 August 1937. During the first attack on the city by the Kizarazu Kokutai that same afternoon, the 28th PS claimed two victories. However, veterans from the squadron, including the commander, Capt Chan, Kee-kwong, subsequently complained that the 28th was not been credited with these successes.

After the incorporation of Cantonese units into the Central Air Force, some Cantonese officers complained of unfair treatment and discrimination by their Central Air Force commanders. In the case of the 15 August action, the problem may have been exacerbated by the hurried deployment of the 28th PS to a distant base without its clerical staff to file the combat reports. Looking at records from both sides, it would appear that the two G3Ms the 28th PS helped shoot down came from the 5th Chutai of the Kizarazu Kokutai. Japanese documents show that the first Kizarazu G3M to reach Nanking had been intercepted by the 28th PS, which was the only unit in this area equipped with 'Curtiss Hawks'.

When the G3Ms from the 5th Chutai reached Nanking at 1425 hrs on 15 August, Hawk IIs of the 21st PS/4th PG intercepted them – this unit had only just arrived from Schien Chiao. They reported shooting down two G3Ms with the help of three 'friendly aircraft from Nanking'. The latter could only have been from the 28th PS, since they were the only other Chinese fighter unit flying over Nanking at that time. The G3Ms lost by the Kizarazu Kokutai were almost certainly the 'two enemy bombers' that 'Art' Chin and K K Chan claimed to have shot down on 15 August.

The following day the 28th PS was in Chu-yung when the Kanoya Kokutai attacked. Because the unit was late in receiving word of an imminent attack, only two Hawk IIs – one flown by Chin – managed to

get into the air before bombs started falling. Based on Chin's account, and the flight track from the Kanoya Kokutai's combat report, it would appear that he attacked the No 3 aeroplane in the Command Shotai. Chin and Lt Teng, Cheng-hsi from the 17th PS chased this aeroplane as it turned to the southeast after bombing Chu-yung. The G3M, after dropping its ordnance, was very fast, and the Chinese fighters struggled to keep up with it. Teng broke off first but Chin continued the chase out to Lake Tai, firing steadily and scoring numerous hits on the G3M.

With the Hawk II just keeping up with its quarry, the bomber's gunners also had an easy target, shooting at zero deflection. Chin's fighter was badly shot up, with the engine stopping two bullets. He finally broke off the chase over Lake Tai, the G3M descending in a left turn with a seized engine that was streaming smoke. The aeroplane was also trailing fuel vapour from punctured wing tanks. Chin landed at a secondary airstrip at Chia-hsing, where the Hawk II nosed over when its brakes failed. He claimed a 'probable', but was awarded a confirmed victory based on his description of the action. Osugi's G3M had been hit 58 times, the rounds knocking out an engine, wounding a gunner and causing a very serious fuel leak. Estimating that he would not have enough fuel to return to Taiwan, Osugi turned towards Shanghai and planned to make an emergency landing on the Japanese-held Kunda airstrip. However, after lightening the aircraft by throwing every piece of removable equipment overboard, Osugi was able to reach Cheju Island, where he made a forced landing.

After this experience, Chin wanted to increase the firepower of his Hawk II. He duly asked 'Sebie' Smith, Chennault's armament expert, to install a 0.50-calibre machine gun in his fighter while it was undergoing repairs for battle damage. The installation was completed but Chin never had the chance to use it.

In September, the 28th PS was split into two detachments, each reinforced by Hawk II advanced trainers from the Central Aviation Academy. One detachment under K K Chan was sent to defend Taiyuan, while Chin commanded the second detachment that was sent to defend the Shao-kwan Aircraft Factory in Canton Province. Chin's up-gunned Hawk II, meanwhile, was sent to Taiyuan. Ironically, it was later involved in a friendly-fire incident when a cadet shot down a Chinese He 111A, killing all onboard.

While at Shao-kwan Chin split his time between air defence missions and test-flying newly assembled Hawk IIIs before they were delivered to operational units. On 27 September the Kanoya Kokutai sent three G3Ms to attack the Canton-Hankow railway in Canton Province. Three Hawk IIIs from the independent 29th PS were scrambled from Tien-ho airfield in Canton, while Chin led four Hawk IIs aloft from Shao-kwan. In the ensuing action the 29th PS claimed to have downed one of the G3Ms, while Chin reported shooting up a bomber and 'driving it away'. Japanese records



Curtiss Hawk II No 13 was used as an advanced pursuit trainer at the Central Aviation Academy. After war broke out, Hawk IIs from the Academy equipped the 34th Provisional Pursuit Squadron, which was manned by instructors and new graduates. Chin's unit at the start of the war (28th PS/5th PG) was equipped with Hawk IIs, many of which were in poor condition after long periods of service. A number of Hawk IIs from the Academy were transferred to the 28th PS to bring it up to full strength when Chin was detached with a flight to protect the Shao-kwan Aircraft Factory. The rest of the squadron was deployed to protect the northern city of Taiyuan. The commander of the 28th PS, Capt K K Chan, was flying ex-Academy Hawk II No 7 when he shot down Maj Hiroshi Miwa, commander of the 1st Daitai, 16th Hiko Rentai of the JAAF

indicated that one aeroplane was indeed lost, but it did not go down straightaway. The No 2 aircraft (commanded by Lt Yoshida) was attacked by Hawk IIIs, their fire wounding one of its gunners and holing a fuel tank.

Japanese records also described a second attack made by 'another type of aircraft' – probably referring to a Hawk II with fixed landing gear, vice the retractable undercarriage fitted to the Hawk III. This attack was much more devastating, the fuselage and the wing tanks being hit numerous times. Yoshida and the two remaining gunners were all wounded, one of them critically. With fuel being lost at an alarming rate, Yoshida ditched the G3M near a British freighter off the coast of Swatow. The crew was rescued but one of the gunners subsequently succumbed to his wounds.

Later that year (1937) the 28th and 29th PSs converted to Gladiators that were being delivered to Canton. With the aircraft factory being under constant attack, test flights were conducted from dispersal airstrips. Chin remembered that the Gloster test pilot, Capt Maurice 'Mutt' Summers, was initially dismissive of the skills of the Chinese pilots. Chin took one of the newly assembled Gladiators up for a test flight followed by aerobatics. Watching from the ground, Summers was so impressed by what he saw that he told Chin he should be flying the latest Hurricanes.

After completing conversion training on the Gladiator, the 28th PS was ordered from Hengyang, in Hunan Province, north to Nanchang, in Kiangsi Province, on 9 February 1938. During the flight the 11 Gladiators ran into a severe snowstorm. Leaving his deputy in charge, Chin descended below the clouds to find his bearings and ended up crash-landing on a hillside. Suffering injuries to his right eye, he walked for miles in the snow to reach help. One other Gladiator was lost, although its pilot managed to bail out. Chin was out of action for three months.

On 31 May reports came in of nine Japanese floatplanes approaching Hukou, on Lake Poyang. Chin led five Gladiators aloft to intercept the enemy aircraft – E8Ns from the seaplane carrier *Kamikawa Maru*, which were flying in a large Vee formation at 6000 ft. The Gladiators had a 1500-ft height advantage when they spotted the floatplanes, Chin signalling for the Gladiator pilots to attack the E8Ns from above. Diving below one of the floatplanes, Chin opened fire and forced one of the E8Ns into a half roll. He followed this with another burst, which sent the floatplane crashing 12 miles north of Hukou – both crewmen were killed. Lt Chow, Ling-hsu also shot down an E8N, although its crew managed to bail out and were rescued by an IJN patrol boat.

During the 16 June action near Le Chang, when John Wong detonated the bomb load of a Takao Kokutai G3M, Chin attacked the bomber on the left side of the formation that had been damaged by the blast. Setting the aeroplane alight, he sent the G3M crashing into rice fields east of Le Chang. The third G3M in the flight was also damaged, but it did not crash immediately.

After the Gladiators returned to Shao-kwan airfield, someone ran out to Chin's aircraft and told him that the air raid warning net had telephoned in reports of a Japanese aeroplane flying northeast of Le Chang. Chin took off and flew out to the location, where he found a lone G3M limping along slowly, seemingly lost. This was actually the No 3 aeroplane damaged by the exploding bomb load of its leader. The crew was probably disoriented and lost, as it had headed away from its target in Le Chang

and the coast from whence it had come. Chin closed in and fired the rest of his ammunition into the G3M, which was last seen descending streaming heavy smoke. Its wreckage was later found on land near Tung-tse Wan, northeast of Le Chang.

On 3 August the IJNAF mounted a large raid on Hankow with 18 G3Ms, escorted by 29 A5Ms. The Chinese put up no fewer than 52 fighters in four groups to defend the city. A Soviet 'volunteer' commander was in overall command, and he had all the aeroplanes in tightly packed formations at similar altitudes, which negated their numerical advantage. Unlike the Japanese A5Ms, not all the Chinese aircraft were equipped with oxygen systems, and some of those that had the equipment had only a limited supply. Pilots tended to put off using oxygen until they had climbed to altitude and combat was imminent.

Chin was in the third formation leading seven 28th PS Gladiators, along with four Gloster fighters from the 32nd PS/3rd PG. He recalled being dizzy from hypoxia after climbing to 12,000 ft, at which point a large formation of A5Ms was spotted to the left at an even higher altitude. Climbing to 21,000 ft, Chin saw that the A5Ms were still about 2000 ft above the Chinese biplanes.

As the Gladiator pilots formed up with three I-16s from the 26th PS in preparation to engage the large formation of A5Ms, three unobserved Mitsubishi fighters attacked them from above and behind. Two went after the I-16s while one latched onto the tail of the Gladiator flown by Lt Clifford Louie from Portland, Oregon, who was deputy commander of the 28th PS. Chin, in Gladiator No 2809, led his flight to Louie's aid, driving off the A5M. One of Chin's wingmen, Lt Fan, Hsin-min, in Gladiator No 2805, then saw an I-16 below them that was being closely pursued by an A5M. Fan rocked his wings and dived after the IJNAF fighter just as another A5M dived after Fan's Gladiator from above. Chin immediately went to the aid of his wingman, opening fire and driving the A5M off Fan's tail.

Minutes later Chin's Gladiator was hit. The night before this engagement mechanics from the co-located 32nd PS had attached armour plating salvaged from an I-15bis onto the seat back of No 2809. This almost certainly saved Chin's life, as he only realised he was under attack from behind when bullets struck the armour plating – three A5Ms were taking it in turns to make high-speed diving passes on the Chinese fighter. After each pass the IJNAF pilots would zoom-climb back up to altitude to re-position for another attack. Chin could only counter defensively by turning tightly.

With his Gladiator badly damaged and some of the wing bracing wires shot away, Chin decided to ram one of his attackers. When the next A5M pulled up after making a diving pass, Chin reversed his turn and climbed hard into the path of the A5M. The Gladiator hit the Japanese fighter in the wing and tail and both aeroplanes went down out of control. Chin was trapped in his cockpit for some time, his head slamming into the canopy as the Gladiator spun wildly out of control. He was finally able to struggle free and open his parachute. After landing, a local farmer came to his aid. Later on, the farmer returned with a machine gun salvaged from the Gladiator. After returning to Hankow, Chin was visited by Chennault at the base infirmary. He told the American about the ramming, and bringing back the salvaged machine gun. Chin jokingly asked if he could



'Art' Chin at Lanchow in 1939, when he served as an instructor for the Combined Pursuit Group. While at Lanchow, Chin had the bizarre experience of having to fight off local bandits of the 'Wu Chi' Cult who mounted a mass attack on the CAF training compound at Hsi Kucheng airfield during the night of 30 March 1939. Only the instructors like Chin had been issued with sidearms, and the cadets barricaded themselves in their barracks. Chin fired his pistol in action for the first and only time during the war, not against the Japanese, but defending himself against Chinese bandits! The latter fired back with a shotgun and Chin decided to join the cadets in their barricaded room. A number of CAF personnel, members of the security detail and the political officer were killed in the attack. Fortunately, none of the pilots were killed, although one cadet was captured and later escaped. He had to swim a river to return to base, almost dying of hypothermia. This experience showed the challenges faced by the Chinese Central Government during the Sino-Japanese War. Not only did they have to contend with the Japanese, in some of the remote provinces like Kansu there were also very active local warlords and bandit groups ('Art Chin' via John Gong)

'Art' and Mrs Chin (Eva Wu), who was the daughter of a family friend of the Chins who had also served in the Chinese diplomatic service in Peru. After Chin was badly burnt in the 27 December 1939 action over the Kun-lun Pass, Mrs Chin took care of him in their quarters next to Liuchow airfield. In a heroic effort worthy of a Hollywood script, Mrs Chin sacrificed her life to protect her husband and two sons during an air raid. When the air raid warning sounded, she first took her two sons down into the basement shelter and then tried to help her husband who was unable to move or see because of his burn injuries. Upon hearing the shriek of ordnance falling nearby, Mrs Chin covered her husband's body with her own and was killed by a bomb fragment ('Art' Chin via John Gong)



swap the gun for a new aeroplane. This story, in somewhat embellished form, appeared in Chennault's *Way of a Fighter*.

On 6 July 1939 four JAAF Ki-27 fighters were strafing ground targets at Ping Liang, in Kansu Province, when one force-landed. The pilot was rescued by another Ki-27 that landed nearby. Chinese troops rapidly hid the perfectly intact Japanese fighter by covering it with hay. Chin was duly called in to see if he could fly it to a CAF airfield. He examined the Ki-27 and determined that its pilot had not switched over to the main fuel tank when the auxiliary tanks ran dry, thus causing the engine to stop from fuel starvation. After switching over to the main tanks, the Chinese groundcrew was able to start the Ki-27's engine, and Chin flew it back to a CAF airfield. The Ki-27 was subsequently evaluated against Soviet fighters in mock dogfights. John Wong flew the Ki-27 and demonstrated that by using the aircraft's superior climb performance, he could hold off attacks by two flights of I-15bis. John later flew the Ki-27 in interception missions against Japanese bombers attacking Chengtu at night, but without much success.

In August 1939 Chin was sent south with two other pilots to collect three Gladiators that had been repaired at the aircraft factory in Liuchow, Kwangsi. While there, the Japanese Army threatened to move into Kwangsi, so Chin was ordered to conduct a guerilla campaign using the three fighters. They were to move from airfield to airfield in Kwangsi and harass Japanese aircraft, while avoiding superior fighter forces.

On 2 November Chin intercepted an IJNAF Mitsubishi C5M Navy Type 98 reconnaissance aeroplane over Wuming airfield, in Kwangsi. He had positioned another Gladiator on the opposite side of the airfield, where the Japanese aeroplane would likely head on its way back to base on Hainan Island. Knowing that he would only have one shot at the C5M before the faster monoplane sped out of range, Chin hit it hard – he seriously injured the observer, Sub-Lt Yonetaro Ueda. Unfortunately, the second Gladiator pilot was unable to intercept the aeroplane, allowing the C5M to get away.

During this period leading up to the 27 December Chinese counterattack at Kun-lun Pass, the official CAF history records that Chin's guerilla band had one confirmed victory. Chin himself recalled in an interview that 'a few days before Christmas' he had shot down a bomber by attacking it from behind and below.

On 27 December the CAF sent a flight of SB-2s flown by Soviet 'volunteers' to support the counterattack at the Kun-lun Pass, the bombers being escorted by two Gladiators and an I-15bis. Chin and the commander of the 32nd PS, Capt Wei, Yi-ching, flew the two British biplanes, while Lt Chen, Yeh-hsin was at the controls of the I-15bis. When the group was intercepted by A5Ms of the 14th Kokutai, Chin's flight held them off long enough to allow the SB-2s to get through and complete their bombing mission.

The Chinese Army won a major victory at the Kun-lun Pass, thwarting the Japanese attempt to cut supply routes from the West through French Indochina. However, the Gladiator guerilla band was to pay a heavy price for this success, with Capt Wei being shot down and killed. Chin managed to save Lt Chen from meeting a similar fate when he was closely pursued by an A5M. Chin was able to shoot the A5M off Chen's tail, but he then came under attack himself from behind. Chin's Gladiator burst into flames when it was hit, the pilot suffering terrible burns to his face. Nevertheless,

Chin managed to fly his fighter back over Chinese lines before bailing out. Chen, who had been wounded in the back, force-landed his I-15bis close to friendly territory. Some sources claim that Chinese troops found three wrecks in the area, with serial numbers recorded for two. The third aeroplane was referred to as a 'naval aircraft', possibly a floatplane.

Chin was brought back to Liuchow airfield, where he was cared for by his wife at their quarters near the base. One night there was an air raid, and upon hearing the sirens Mrs Chin carried their two young sons into the basement. She then came back to help Chin, whose eyes were still bandaged. Hearing the whistling of falling bombs, Mrs Chin covered her husband's body with her own. The blast of a near miss levelled their quarters, and Mrs Chin was hit in the waist by debris and killed. She had, however, saved her husband and two sons.

Chin was later evacuated to the US for skin graft treatment. Upon its completion he returned to active duty, flying transport aeroplanes over the 'Hump' between India and China. Chin was awarded the Six Star Medal.

'Buffalo' Wong, Sun-sui

'Buffalo' Wong, Sun-sui (黃新瑞 Hwang, Hsin-Jui in mandarin) was born in Taishan County, Kwangtung Province. When he was nine Wong moved to Los Angeles, where his father ran a Chinese restaurant. He enrolled in the Chinese aviation school in Los Angeles at 18, straight out of high school. After graduation, Wong was sent to Oakland for flight training, where he received his US pilot's licence in 1934. Wong then returned to China with a number of other Chinese-American pilots, where they joined the Provincial Air Force of their native Kwangtung. After an abbreviated flying training course and officer training, Wong was immediately assigned to operational flying in the 2nd PS.

Described as a stocky fellow, Wong was nicknamed 'Buffalo' by his Chinese-American colleagues – in reference to the formidable Asian water buffalo rather than the American bison.

After the Provincial Air Force's integration with the Central Air Force, 'Buffalo' was assigned to the 17th PS/3rd PG and made deputy squadron leader under John Wong. On 15 August 1937 during the Kisarazu Kokutai raid on Nanking, 'Buffalo', flying Boeing 281 No 1703, intercepted the four G3Ms of the 4th Shotai as they attacked Ta Hsiao Chang airfield. Targeting the last aeroplane in the diamond formation, 'Buffalo' approached from the rear and to the left, using the blind arc afforded by the left vertical tail. Shooting at the left wing, he set the wing tanks alight, sending the G3M crashing in flames east of Nanking.

Return fire from the bomber's gunners had in turn hit No 1703 in the propeller, engine and a fuel tank. 'Buffalo' was duly forced to carry out a dead-stick landing at Ta Hsiao Chang. The Boeing 281 was quickly repaired and ready for action the next day, when the Kanoya Kokutai attacked Chu-yung. 'Buffalo' chased a damaged G3M all the way to Suchow, but he was unable to finish the bomber off when his guns refused to fire due to an electrical failure.

During the large-scale battle over Nanking on 19 September Buffalo led five Boeing 281s into action against eight E8N floatplanes engaged near Chu-yung. The aircraft (Boeing 281 No 1701) of Lt Liu, Lan-ching was hit within minutes of the action commencing, *(text continues on page 63)*



'Art' Chin after skin grafts for the severe facial burns he suffered during the action over Kun-lun Pass on 27 December 1939. He had to travel through India and Africa, skirting the Mediterranean war zone, to get to a New York hospital, where he received the skin graft operations ('Art' Chin via John Gong)



1 Nieuport 17 White 'T' in Black disc, possibly flown by Sgt Etienne Tsu, *Escadrille N37*, Cachy, France, July 1916



2 Curtiss Hawk III 'IV-1' flown by Lt Col Kao, Chi-hang, CO of the 4th PG, Schien Chiao, August 1937



3 Curtiss Hawk III No 2102 flown by Lt Liu, Che-sheng, 21st PS/4th PG, Schien Chiao, August 1937



4 Curtiss Hawk III No 2204 flown by Lt Yue, Yi-Chin, 22nd PS/4th PG, Schien Chiao, August 1937



5 Curtiss Hawk III No 2404 flown by Lt Yuan, Pao-kang, 24th PS/5th PG, Yangchow, October 1937



6 Curtiss Hawk III No 2407 flown by Capt Liu, Tsui-kang, CO of the 24th PS/5th PG, Yangchow, October 1937

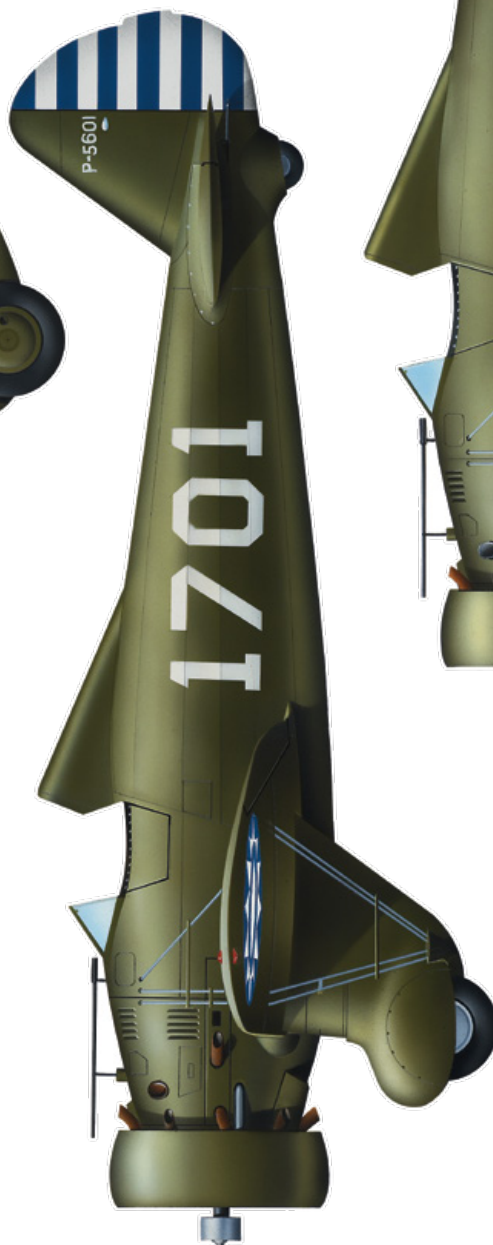
7

Curtiss Hawk II No 2804 flown by Lt 'Art' Chin, Deputy
CO of the 28th PS/5th PG, Chu-yung, August 1937



8

Boeing 281 No 1701 flown by Capt John Wong,
Poon-yeung, CO of the 17th PS/3rd PG, Chu-yung,
August 1937



9

Boeing 281 No 1703 flown by Lt 'Buffalo' Wong, Sun-sui,
Deputy CO of the 17th PS/3rd PG, Chu-yung, August 1937



10

Boeing 281 No 1706 flown by Capt John Wong,
Poon-yeung, CO of the 17th PS/3rd PG, Chu-yung,
September 1937



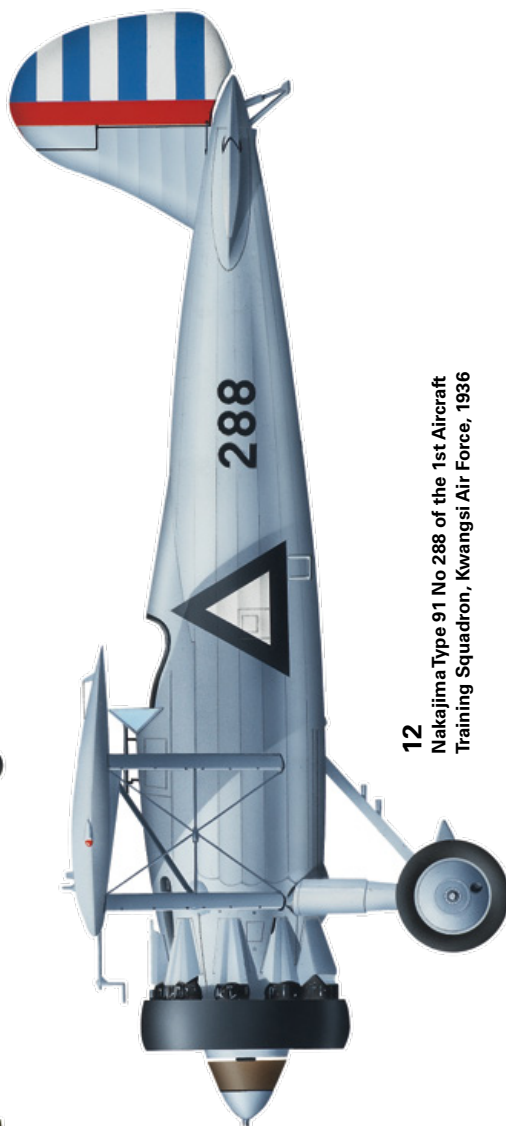
11

Fiat CR.32 No 806 flown by Lt Chen, Tse-liu,
8th PS/3rd PG, Nanking, September 1937



12

Nakajima Type 91 No 288 of the 1st Aircraft
Training Squadron, Kwangsi Air Force, 1936



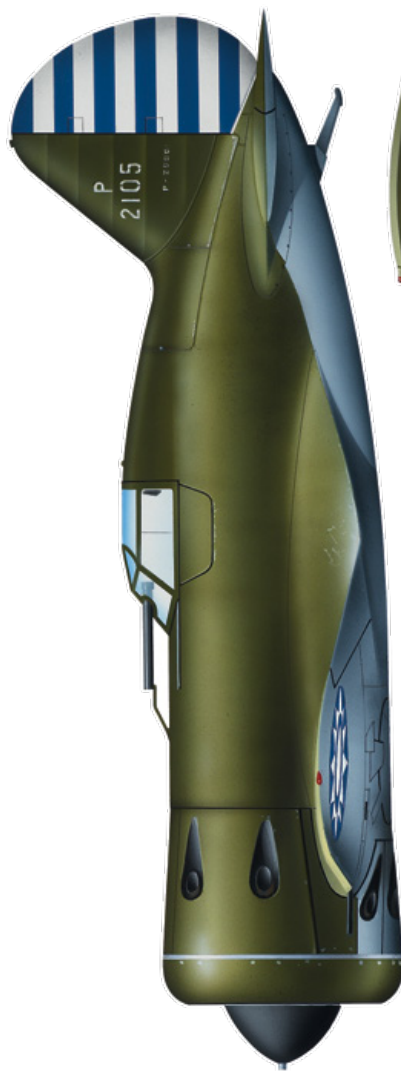
13

Polikarpov I-16 Type 5 No 82 (P-series serial unknown)
flown by Lt Loh, Ying-teh, Soviet Volunteer Pursuit
Group, Hankow, January 1938



14

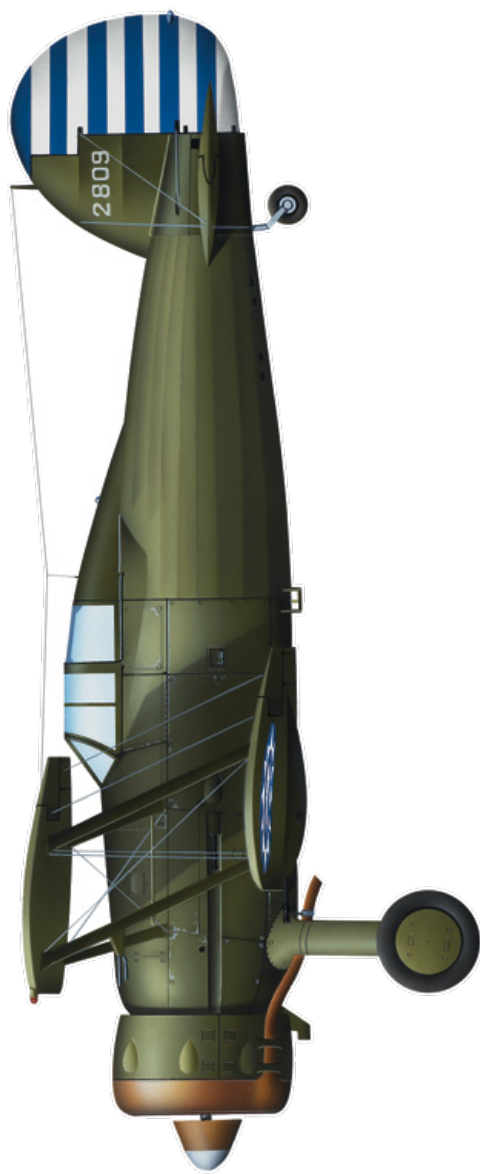
Polikarpov I-16 Type 5 P 2105/P-5360 flown by Lt Liu,
Che-sheng, 21st PS/4th PG, Hankow, February 1938



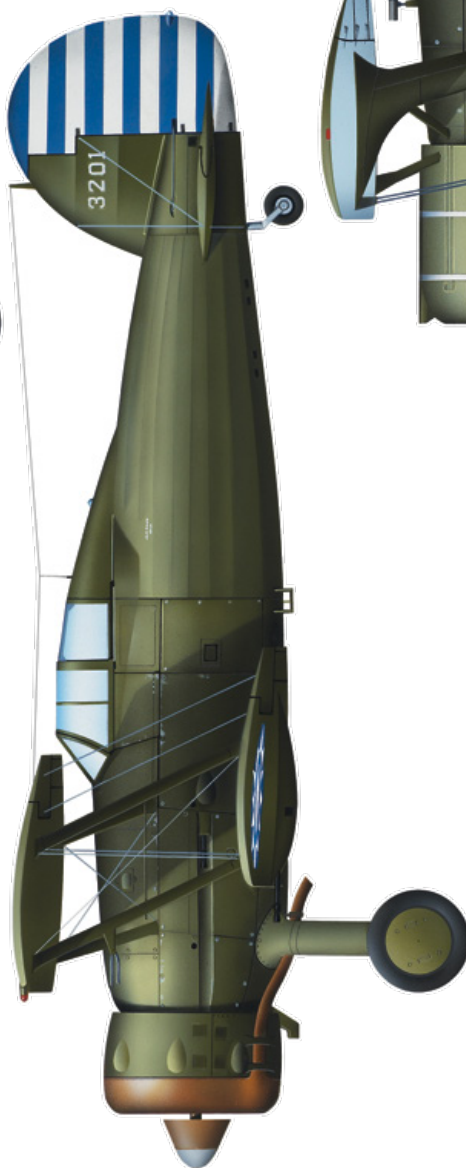
15

Gloster Gladiator I No 2909 flown by Maj John Wong,
Poon-yeung, CO of the 5th PG, Nan Hsiung, June 1938

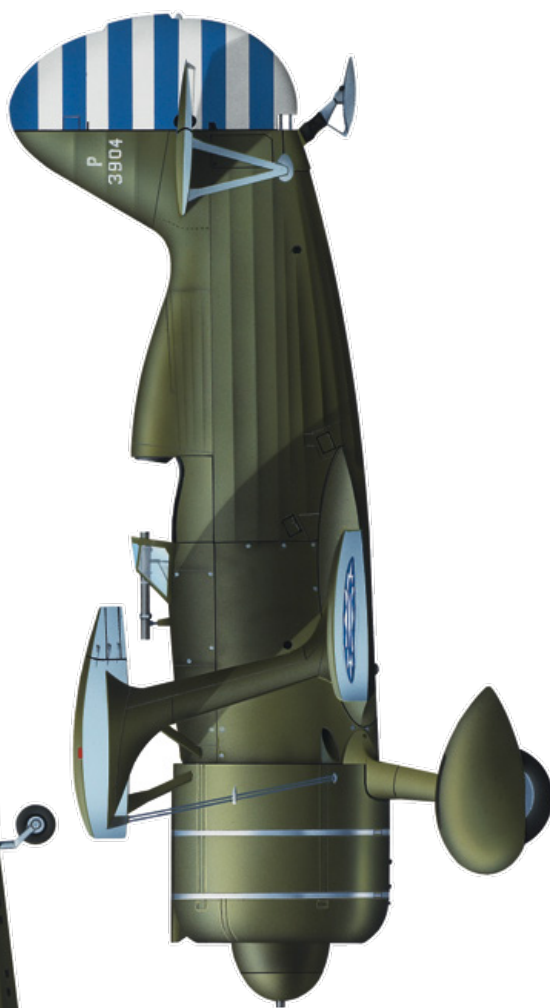




16
Gloster Gladiator I No 2809 flown by Capt 'Art'
Chin, 28th PS/5th PG, Hankow, August 1938



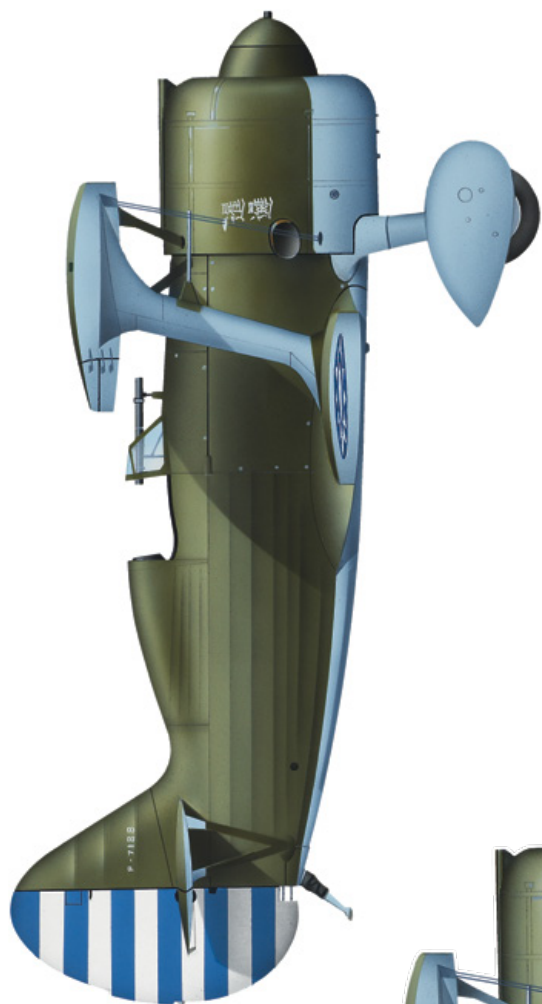
17
Gloster Gladiator I No 3201 flown by Capt Chu, Chia-hsun,
32nd PS/3rd PG, Nan Hsiung, August 1938



18
Polikarpov I-15bis P 3904 flown by Anton A
Gubenko, 39th PS/Soviet Volunteer Group,
Nanchang, April 1938

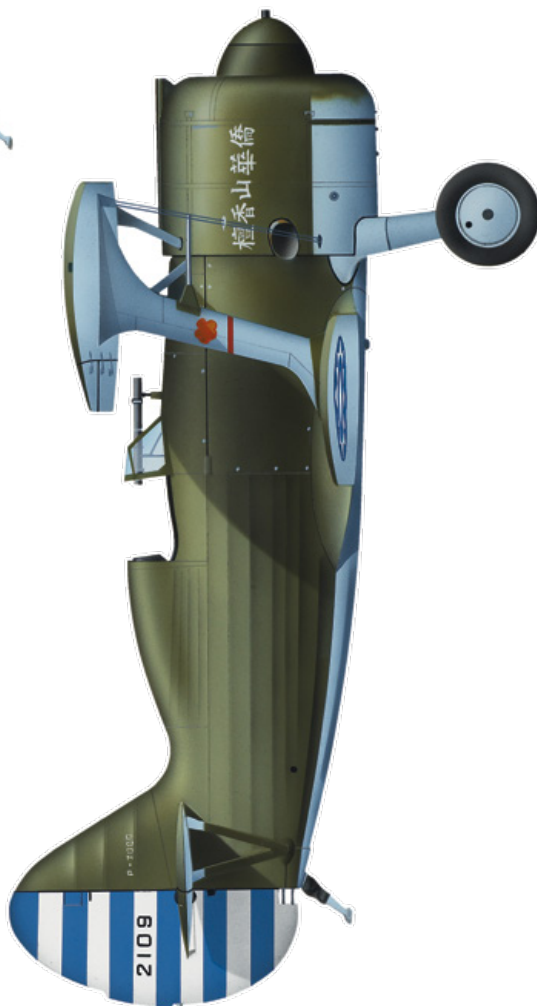
19

Polikarpov I-15bis P-7188 flown by Maj Chen, Tse-liu, CO of the 17th PS/5th PG, Lanchow, summer 1939



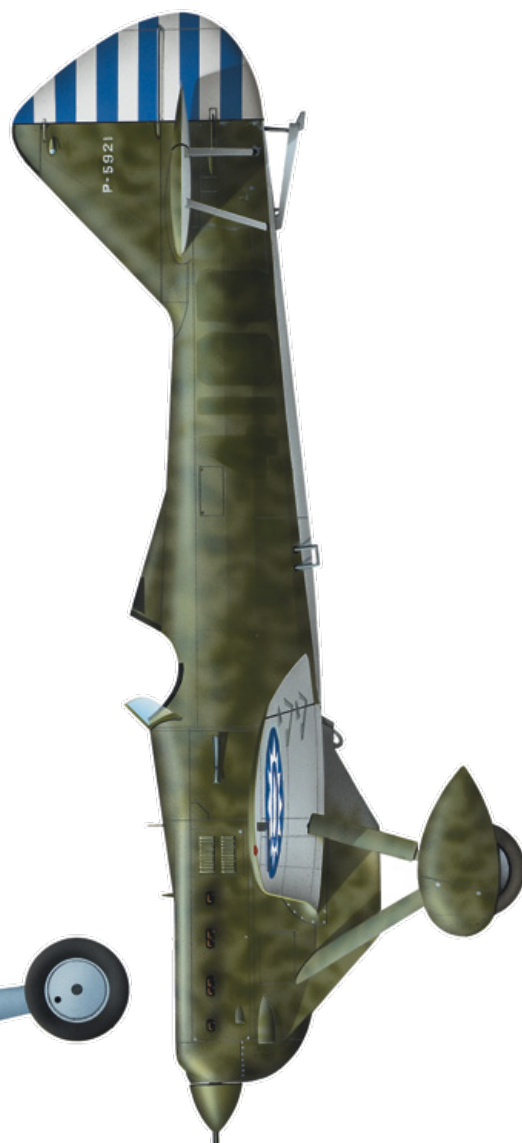
20

Polikarpov I-15bis 2109/P-7163 flown by Lt Liu, Chisheng, 21st PS/4th PG, Kwang-yang-ba, July 1939



21

Dewoitine D.510 P-5921 flown by Capt Chen, Tse-liu, 17th PS/5th PG, Kunming, November 1939



22

Republic P-43A Lancer 2401/P12083 flown by Capt Chow, Chi-kai, Deputy CO of the 24th FS/4th FG, En-shih, October 1942



23

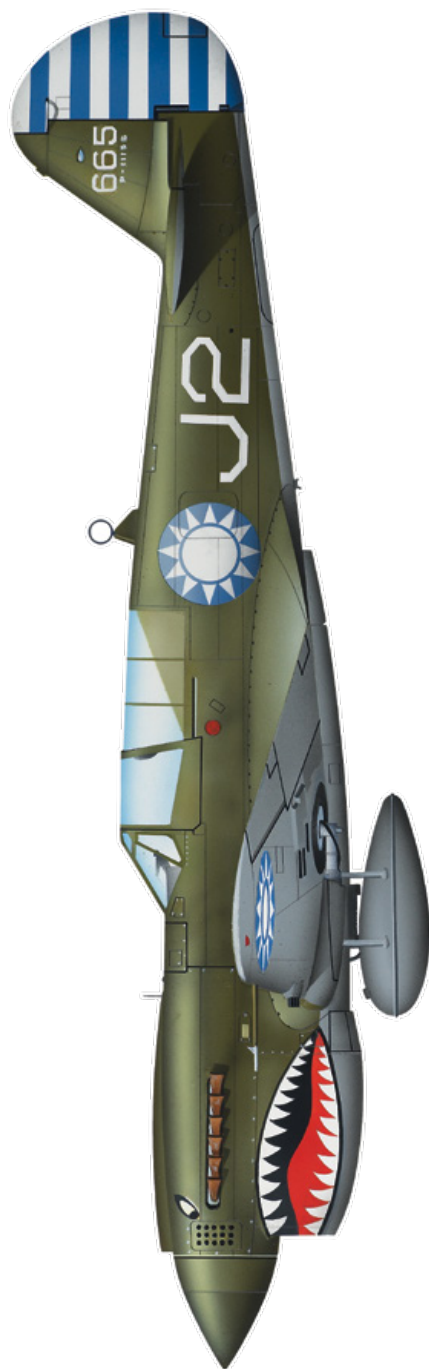
Republic P-43A Lancer 2101/P-12012 flown by Capt Kao, You-hsin, CO of the 21st FS/4th FG, En-shih, late 1943



24

Curtiss P-40K Warhawk 2304/P-11029 flown by Lt Tsang, Hsi-lan, 23rd FS/4th FG, Liangshan, May 1943

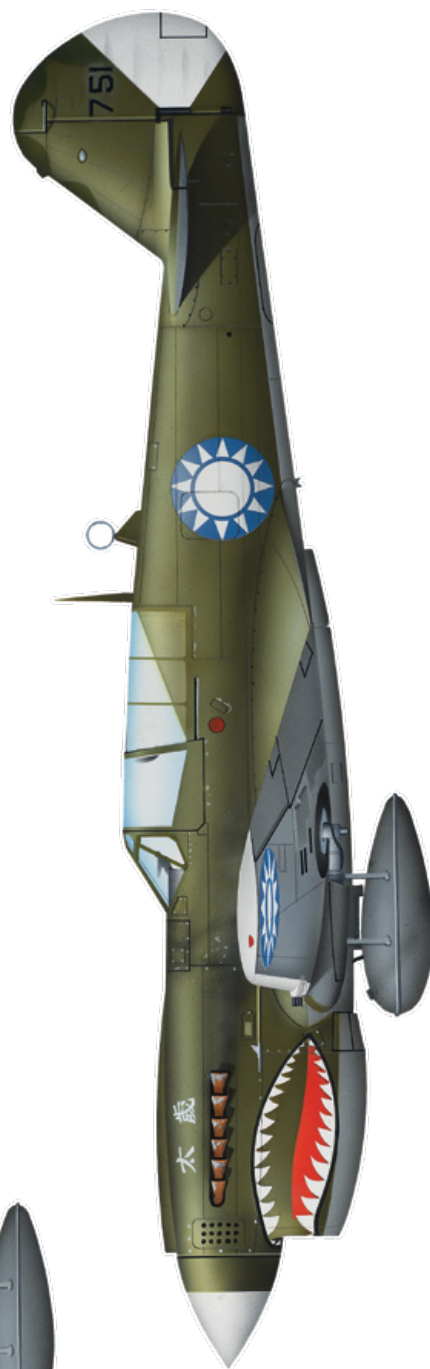




25 Curtiss P-40N Warhawk 665/P-11156 flown by Lt Tan, Kun, 7th FS/3rd FG, Ankang, May 1944



26 Curtiss P-40N Warhawk 663/P-11151 flown by Lt Wang, Kuang-fu, 7th FS/3rd FG, Ankang, May 1944

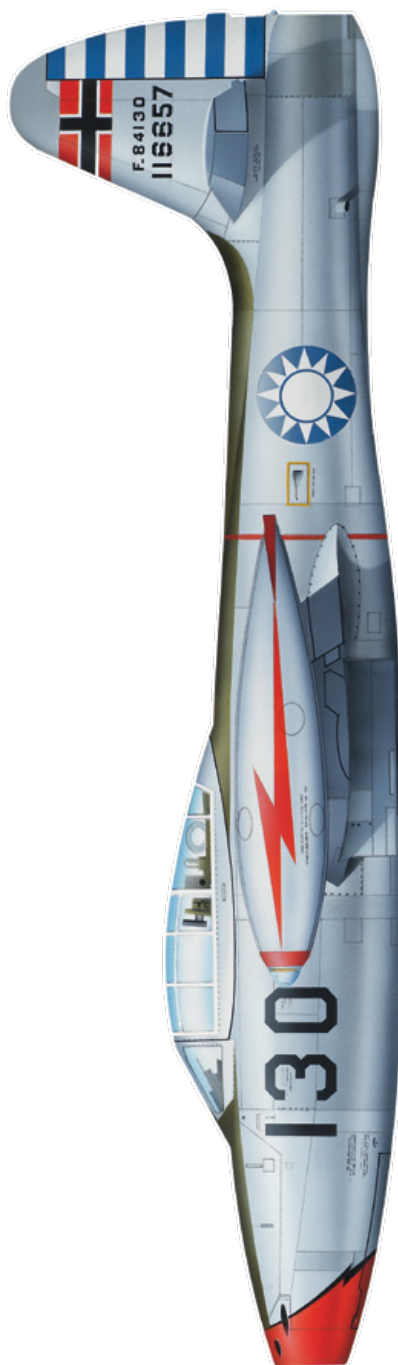


27 Curtiss P-40N Warhawk 751 flown by Capt 'Fred' Chiao, Wu-o, 29th FS/5th FG, Chih-kiang, January 1945

28 North American P-51D Mustang 756
flown by Lt Leng, Pei-shu, 29th FS/5th
FG, Chihkiang, June 1945



29 Republic F-84G Thunderjet
51-16657/F84130 of the 1st FS/1st
FG, 1st FW, Tainan, 1955



30 North American F-86F Sabre,
Headquarters Flight, 11th FG,
2nd FW, Hsinchu, September 1958



and he was forced to bail out. Three E8Ns quickly circled the Chinese pilot and strafed him in his parachute, killing Liu. When Buffalo tried to intervene, he was attacked by an A5M, possibly flown by PO2c Harada of the 13th Kokutai, who claimed a 'Breda 27' during the action. The Breda 27, which had been retired from CAF service by then, closely resembled the Boeing 281. Harada claimed to have hit the 'Breda 27' in the left wing, forcing the pilot to bail out. 'Buffalo', who was hit in the left hand, bailed out when he found that he could no longer control the Boeing 281.

After recovering from his injuries, 'Buffalo' was given command of the 29th PS/5th PG, equipped with Gladiators.

On 23 February 1938, the 28th and 29th PSs sent 12 Gladiators to Nan Hsiung to bolster local air defences. The following morning, the IJN seaplane carriers *Notoro* and *Kinugasa Maru* launched an attack on Nan Hsiung. *Notoro* despatched six Kawanishi E7K Navy Type 94 seaplane reconnaissance aircraft, escorted by four E8Ns, while *Kinugasa Maru* sent two E7Ks escorted by four E8Ns. Eleven Gladiators were scrambled at 0905 hrs following reports of floatplanes approaching from both the south and the southeast. One Gladiator from the 29th PS was found to be suffering from a serious fuel leak and did not takeoff.

The CAF fighters searched to the southeast for 20 minutes without finding the enemy aircraft, after which they headed back to Nan Hsiung. Nearing the airfield the Japanese formation was spotted coming in from the south. 'Buffalo' led the Gladiators in a diving attack as the bomb-carrying E7Ks began attacking the airfield. He hit one of the floatplanes, setting it on fire, but the crew was able to extinguish the flames by diving. The machine then fled south. Four other Gladiators combined to set another floatplane alight, but its crew also extinguished the flames by diving. This E7K also headed south trailing black smoke. 'Buffalo' then combined with three other pilots to shoot up a third floatplane, which fled south trailing fuel vapour from punctured tanks.

During the battle the Gladiators had been plagued by gun stoppages, which, according to 'Art' Chin, may have been due to a batch of 7.92 mm ammunition sourced from Belgium. Few of the Gladiators had all four guns functioning as a result of jamming. For some of the CAF pilots, this had fatal consequences. Three Gladiators led by Lt Hsieh, Chuan-ho of the 28th PS were chasing an E8N when it suddenly turned around and opened fire. All four of Hsieh's guns jammed and he was unable to shoot. The E8N hit one of the pursuing Gladiators, No 2902, head on, sending it down in flames and killing the pilot, Lt Yang, Ru-tong. It is possible that Yang's weapons may have also jammed, because the Gloster fighter's four 0.303-in Brownings easily out-gunned the E8N with its single forward-firing machine gun in a head-on confrontation. Gladiator No 2807 was also lost in similar circumstances and its pilot, Lt Chen, Chi-wei, killed. Finally, Lt Chou, Ling-hsu had to press home his attack on another E8N because of jamming guns, only to be hit by the rear gunner. The right wing support strut was damaged and the controls to the right wing flaps were shot away.

Bombing by the E7K floatplanes damaged the Gladiator that had been left behind at Nan Hsiung with a fuel leak. Two other Gladiators were damaged landing on the bomb-cratered airfield.

As the floatplanes departed, 'Buffalo' gave chase. He caught up with an E7K over Shao-kwan and succeeded in damaging it, the floatplane last being seen heading southeast streaming fuel vapour.

Had the Gladiators' guns being fully operable, the CAF pilots would have undoubtedly inflicted greater losses on the IJNAF floatplanes. *Notoro* reported losing one E8N, three E7Ks and four aircrew, while *Kinugasa Maru* lost just one E7K and its three-man crew. The Chinese located one wreck at Hsin Feng, 60 miles southeast of Nan Hsiung, and another at Tseng Cheng, which was even further south. The lead E8N from *Notoro*, flown by Lt Kunihiro Iwaki, was hit 138 times and crashed on landing, wrecking its tail. Iwaki's observer was killed. Two of *Notoro's* E7Ks managed to fly out to sea before ditching, allowing the crews to be rescued.

On 28 February 'Buffalo' was at Tien Ho, in Canton, when reports came in of four Japanese aeroplanes approaching the airfield. 'Buffalo' took off in Gladiator No 2905 at 0710 hrs to intercept, following the Kowloon-Canton railway east until he spotted four E8Ns over Tung Pu at 12,000 ft. Climbing above the floatplanes, 'Buffalo' made a diving attack on the lead machine as the rest of the enemy aircraft scattered. Out of his peripheral vision, 'Buffalo' saw an E8N trying to climb and get a height advantage. Using the superior performance of his Gladiator, Buffalo easily out-climbed the floatplane and scored hits that sent it falling out of the fight. 'Buffalo' then had to contend with the remaining floatplanes, which meant that he could not confirm the destruction of the E8Ns he had hit. Nevertheless, he could only see two floatplanes fleeing out to sea in the direction of Humen when the action ended. 'Buffalo' returned to Tien Ho to claim one victory and one probable.

During the morning of 13 April the carrier *Kaga* targeted Tien Ho, despatching 18 D1A1 dive-bombers escorted by six A5Ms and three A4Ns. The lead Mitsubishi fighter of Lt Hideo Teshima developed mechanical problems over the Pearl River delta, forcing its pilot to abort the mission. Teshima's two wingmen escorted him back to *Kaga*. The air raid warning net telephoned in reports of 25 Japanese aeroplanes in three formations approaching Canton from the direction of Humen. Eighteen Gladiators were scrambled from Tien Ho at 1020 hrs, with nine from the 28th PS being led by Capt Clifford Louie (the squadron's deputy commander) and eight from the 29th PS following 'Buffalo' – in Gladiator No 2913 – into action. The Gladiators of the 29th PS patrolled at 16,400 ft while those from the 28th PS were 3300 ft higher.

At 1050 hrs the Japanese formations were sighted over the village of Fang Chiang, to the northeast of Tien Ho. The enemy aircraft were identified



A group of Cantonese Air Force pilots from the Pursuit Group, including 'Buffalo' Wong (in the white shirt, squatting, fourth from the right). 'Art' Chin is standing behind him, third from the right in the back row. Other Cantonese Air Force pilots of note in this photograph, taken at the Canton Country Club, include the Pursuit Group Commander Ting, Chi-hsu (squatting, fifth from the left, in the white shirt). He later became commander of the Central Air Force's 5th PG. Chen, Chi-kwang (K K Chan in Cantonese) is squatting third from the left in the front row. He was the 28th PS commander at the beginning of the war, and was later credited with shooting down Maj Hiroshi Miwa of the JAAF's 1st Daitai, 16th Hiko Rentai over Taiyuan on 21 September 1937 ('Art' Chin via John Gong)

as nine 'bombers' at 13,000 ft and 15 'pursuits' at 17,000 ft. In reality, the 'pursuits' were nine D1A1 dive-bombers with six fighter escorts. 'Buffalo' led the 29th PS in a diving attack on the lower group of 'bombers' while the 28th PS dealt with the 'pursuits' higher up. The lower group of bombers were thought to be the 2nd Chutai of the D1A1s tasked with attacking Pai Yun airfield, in Canton.

'Buffalo' hit one of the D1A1s in his first diving pass, the aircraft last being seen limping away towards the southeast trailing smoke and flames. At this point the A4N fighters dived on the 29th PS in order to protect the remaining D1A1s. 'Buffalo' out-turned an attacking IJNAF fighter and shot it down. The three A5Ms, led by PO1c Jiro Chono, then entered the fight. Chono made a diving pass but overshot, and one of his wingman targeted 'Buffalo'. The CAF pilot responded by quickly pulling the nose of his fighter up in order to come face-to-face with the A5M that was diving on him. Bad ammunition and jamming guns were still plaguing the Gladiators, however, which meant that 'Buffalo' had only one functioning gun (mounted in the fuselage). Nevertheless, he took aim at the A5M (tail code K129), flown by PO2c Yukio Miyazato, and opened fire. Remarkably, 'Buffalo' hit the A5M and sent it down out of control. Miyazato also hit the Gladiator in the engine.

In the meantime Chono had pulled out of his dive and climbed back up into the fight behind 'Buffalo's' Gladiator. Approaching unseen from the left of the fighter, Chono opened fire and hit 'Buffalo' in the left hand. Wounded and with his engine on fire, the CAF pilot bailed out. While descending in his parachute 'Buffalo' saw an A5M crash below him.

One of 'Buffalo's' wingmen, Lt Li, Yu-rong in Gladiator No 2910, tried to cover his leader by attacking an A5M – probably Chono's. Li was in turn attacked by the A5M of PO1c Kudo, the No 3 aeroplane in Chono's Shotai. Lt Huang, Kwang-ching, in Gladiator No 2917, attempted to intervene but he was too late to prevent Li from being hit and crashing to his death near the Chungshan University campus. For his troubles, Huang was also attacked by the two A5Ms and an A4N. Another 29th PS flight leader, Lt Teng, Chung-kai, saw Huang's plight and came to his aid. Teng attacked the A4N from above and behind, sending it down in flames. Huang was able to break away to the northwest, but not before his Gladiator had been hit 12 times.

The 28th PS also had a tough time with the escorting fighters, losing three Gladiators – No 2812 (pilot bailed out), No 2810 (crash-landed) and No 2809 (pilot killed). Early on in the action Clifford Louie attacked one of the D1A1s from the 1st Chutai as they prepared to dive-bomb Tien Ho airfield. Louie hit the aeroplane, sending it diving out of the fight trailing white smoke. He then attacked another D1A1, but his guns jammed after firing 12 rounds and he had to break off. Both of Louie's wingmen were shot down by escorting fighters as they tried to protect their leader, who focused on attacking the dive-bombers.

The 28th and 29th PSs lost a total of five Gladiators and two pilots. Two more Gloster fighters were damaged. In addition to the two A4Ns and one A5M, *Kaga* lost two D1A1s that were ditched in the mouth of the Pearl River. The No 2 Chutai D1A1 (tail code K215) that 'Buffalo' attacked ditched near Ta Chan Island, close to Shenzhen and Hong Kong. The crew was rescued by a Japanese destroyer. The No 1 Chutai D1A1 (tail code

K229) that Clifford Louie hit ditched near Chi-Ao Island, off the west bank of the Pearl River. The crew was rescued from an inflatable dinghy by a floatplane from *Kagu Maru*. They had had to strip the flexible machine gun off their aeroplane and fire it several times in order to keep a large number of armed Chinese junks at bay while awaiting rescue.

'Buffalo' ended up losing the small finger of his left hand after being wounded in this punishing engagement, leaving him unfit for duty for an extended period of time.

In November 1940 he was promoted to command the 5th PG. Shortly before this the A6M Zero-sen had made its combat debut in China, inflicting heavy losses on CAF fighters and forcing them to avoid combat. In December 1940 the Soviet Union began delivering a new batch of 240 combat aircraft, including 75 I-15IIIs and 65 I-16IIIs. Following the 5th PG's re-equipment and training on the new machines, it returned to Chengtu.

At 1100 hrs on 14 March 1941, the 3rd and 5th PGs put up a total of 31 I-15IIIs to challenge an IJNAF raid consisting of ten Nakajima B5N Type 97 carrier attack bombers, escorted by 12 A6M Zero-sens. The 3rd PG contingent of 11 I-15IIIs led by the commander of the 28th PS, Capt Chow, Ling-hsu, patrolled at 21,300 ft. Above them at 23,000 ft were 11 I-15IIIs led by Capt Chen, Tse-liu, the deputy commander of the 5th PG. Higher still at 24,600 ft were nine I-15IIIs led by Maj 'Buffalo' Wong, commander of the 5th PG. Even though the I-15IIIs had only been delivered a few months earlier, many of them were already in poor condition. Indeed, some Chinese mechanics complained that worn components had been installed by Polikarpov in supposedly 'new' aircraft. Of the eight pilots that took off with 'Buffalo' on 14 March, four had to abort prior to engaging the enemy – two due to oxygen system failure, one because his guns would not fire and the fourth because the engine in his fighter could not provide full power.

The Zero-sens split up into two groups on the 14th, with seven coming in low to strafe Shuang-liu and Taipingssu airfields and five remaining at high altitude out of sight. The I-15IIIs of the flight leaders were equipped with radios, and they were directed to intercept the strafers at Shuang-liu and Taipingssu. Arriving over Shuang-liu, 'Buffalo' spotted the Zero-sens making their strafing runs and led his remaining wingman, Lt Ren, Hsien, down to attack them. The second flight, led by Lt Ma, Kwok-lim, was about to follow suit when he saw three Zero-sens coming at him head-on from a higher altitude. He pulled his nose up to counter the new threat, but could not warn 'Buffalo' because he had no radio. Both 'Buffalo' and his wingman were killed in the subsequent action, having almost certainly been bounced from above by the top cover Zero-sens. Seriously wounded in the head and chest, 'Buffalo' force-landed near the village of Su Ma-tou, but subsequently died of his wounds. He had received the Six Star Medal.

The day had ended disastrously for the Chinese. The remaining two formations of I-15IIIs suffered a similar fate to the first. Survivors reported diving low to engage the strafers, only to be attacked from behind or from the side by other Zero-sens that had made full use of their height advantage. No fewer than eight Chinese pilots were killed, including all three formation leaders, 'Buffalo' and Capts Chen, Tse-liu and Chow, Ling-hsu. Thirteen I-15IIIs were destroyed or written off. There were no Japanese losses. Without better-performing aircraft, the CAF had next to no chance of defeating the IJNAF in aerial combat.

COMBINED PURSUIT GROUP

After the fall of Hankow in October 1938, the Chinese Central Government retreated further inland to the mountainous province of Szechuan and set up its provisional capitol in Chungking. Having suffered heavy losses during the fighting in the defence of Hankow and the Central Plains, the CAF had to reorganise and refit its units.

The Combined Pursuit Group, which had been established in May 1938, was used to provide advanced pursuit training to graduating cadets joining the operational units as replacement pilots. In September, the Combined Pursuit Group was moved to Lanchow, in Kansu Province, which was closer to where Soviet-supplied aircraft were being delivered. Operational units were rotated through to collect new aircraft, conduct training and absorb new pilots, after which they were sent to their operational areas. In many cases they would fly from airfields around Chungking or Chengtu in an attempt to defend these cities from Japanese strategic bombing. Both the JAAF and IJNAF also included Lanchow in their list of strategic targets, which meant that some units undergoing training there saw real combat earlier than planned. Indeed, one, the 17th PS, certainly distinguished itself in action whilst flying from here.

The Japanese strategic bombing campaign of 1939-41 started a technology race in which the CAF found itself falling further and further behind. At the beginning of the summer bombing season in May 1939, the IJNAF determined that the G3M2 Model 21 was vulnerable to attacks by Chinese fighters during daylight raids. It duly switched to bombing nocturnally, which drastically reduced loss rates as the CAF lacked the equipment to fight effectively at night. Japanese bombing accuracy suffered, however, so the IJNAF worked on other solutions. At the beginning of the 1940 summer campaign, the IJNAF progressively introduced aircraft with an increasingly greater margin of performance over those available to the Chinese. Initially, these improvements reduced Japanese losses. Later on, with the introduction of the A6M Zero-sen fighter, it enabled the IJNAF to completely dominate the skies over China.

Yet even with the odds stacked heavily against them, CAF pilots were able to find ways to fight effectively. Some, like Chen, Tse-liu, even developed new techniques for attacking bombers.

Chen, Tse-liu

Chen, Tse-liu (岑澤鏐 Shum, Tsak-lau in Cantonese) was born in Yanping, Canton Province, in 1910. He graduated from Class 6 of the Canton Aviation Academy and served in the Cantonese Provincial Air Force. Chen has been described by those who served with him as a patriotic nationalist who put national interests above provincial rivalries.

Indeed, he had been one of the leaders of the mass defection of the Cantonese Air Force to the Central Air Force during the Kwangtung-Kwanghsi Crisis in 1936. After being integrated into the Central Air Force, Chen was assigned to the 8th PS/3rd PG, flying CR.32s.

During the 15 August 1937 attack on Nanking by the Kisarazu Kokutai, Chen, in CR.32 No 806, and his flight leader, Lt Harry Low from Portland, Oregon, chased an IJNAF bomber to the south of Nanking and claimed to have shot it down near Li-shui. The Kisarazu Kokutai records indicate that the only aeroplane that took this track was the 9-shiki Chukoh of the 5th Chutai leader, Lt Yoshida. Hit hard, and with one engine smoking badly, the bomber descended to 330 ft before Yoshida could get it under control. The 9-shiki Chukoh had fixed pitch propellers that could not be 'feathered', which meant that Yoshida did not finally reach the safety of the airfield on Cheju Island until 2120 hrs.

Chen was later promoted to command the 17th PS after it was transferred to the 5th PG.

On 26 April 1938 Lt Cdr Jiro Tokui of the IJNAF's 13th Kokutai carried out a daring single aeroplane attack on Hsiao-kan airfield, near Hankow, in bad weather. The Chinese air raid warning network had spotted Tokui's G3M before he reached his target, and Chen led four I-15bis off to intercept him. Tokui was able to use cloud cover to elude the interceptors, however, and bomb Hsiao-kan. The ordnance exploding on the airfield allowed Chen to spot the G3M escaping to the east. He duly led his wingman, Lt Chu, Chun-Chiu, into the attack using a new gunnery pass he had developed. Approaching head-on at a higher altitude above the target, the I-15bis pilot would half-roll and dive on the target. With the right timing, the I-15bis would be lined up for a high speed firing pass starting from above and approximately 330 ft behind the target. This gave the pilot three to four seconds of firing time before passing the target. Executing their firing pass perfectly, Chen and his wingmen shot Tokui's G3M down in flames six miles northeast of Hsiao-kan.

Chen taught his technique to his squadron, whose pilots had one opportunity to apply it during the big battle over Hankow on 29 April. Chen and a wingman, Lt Chiu, Ke, executed a variation of the half-roll, diving overhead pass. Instead of coming out astern of the bomber, they straightened up beneath their target and then pulled up, firing at the belly of a G3M and causing it to smoke heavily and drop out of formation.

Shortly thereafter the 17th PS was sent north in a ground support role, and it did not have the opportunity to intercept bombers again until the following year. Worse still, some of the pilots who had been taught the technique were lost on 20 May 1938 when Chen led ten I-15bis from the 17th PS in an attack on Japanese artillery positions near Lanfeng. They were intercepted close to their target by JAAF Ki-27 and Ki-10 fighters, losing eight I-15bis and six pilots in the one-sided engagement that ensued. Among the dead were Lts Chu, Chun-chiu and Chiu, Ke. Two other 17th PS pilots force-landed in enemy territory but they evaded capture and returned to Chinese lines. Only Chen and a flight leader, Lt Ma, Kwok-lim from Canada, were able to return to base in badly damaged aeroplanes.

The 17th PS was one of the units rotated to Lanchow in September to re-equip and train replacement pilots. Whilst there, Chen taught a new



Chen, Tse-liu was one of the unsung heroes of the CAF. Hsu, Chi-hsiang, who flew as his wingman, described him as an unselfish leader who took care of his men. Others noted that he was one of the key players in the defection of the Cantonese Air Force to the Central Government that defused the 1936 Crisis. Yet Chen never claimed credit or tried to gain promotions for what he did. Perhaps even more remarkable was his role in developing an effective technique for attacking bombers (similar to but developed independently of the US Navy's 'overhead approach from an opposite course'). At a time when poor gunnery techniques saw few successes against bombers even with massed fighter attacks, Chen was able, on three occasions in 1938-39, to down IJNAF and JAAF twin-engined bombers with one or two firing passes



The wing from an IJNAF aircraft – thought to be a G3M – on display in a park at Wuhan in 1938. Chen, Tse-liu helped shoot down two G3Ms near Wuhan in April 1938 using his new attack technique (*AHSROC*)

A group photograph of pilots from the 17th PS during training at Lanchow. The squadron commander, Chen, Tse-liu, is seated second from the right. Hsu, Chi-hsiang, who later became a co-leader of the CACW's 7th FS/3rd FG, is standing behind Chen third from the left



group of graduating cadets his bomber attacking techniques. Hsu, Chi-hsiang, who later served as a squadron commander in the CACW, was assigned to the 17th PS at the time, and he recalled how the squadron's English-speaking Chinese pilots from Canada, the US and Malaya would jealously guard their 'proprietary battle techniques'. At Lanchow, where many units were gathered for training in the Combined Pursuit Group, these pilots would only discuss their battle techniques in English!

Chen and the 17th PS were to distinguish themselves during the JAAF raids on Lanchow in February 1939. On the 20th, the JAAF's 98th Sentai lost two of nine BR.20 bombers it had sent to bomb Lanchow.

The trainees and instructors had taken off in every available fighter – 11 I-15bis, two I-16s and a Hawk III – to intercept the raid. However, the official CAF history entry for the battle singled out the 17th PS and its use of the 'half-roll, diving' attack technique for special recognition. Chen was credited with shooting down the lead bomber, and a second BR.20 was destroyed by the deputy squadron leader, Lt Ma, Kwok-lim.

Three days later, on 23 February, the JAAF returned with Mitsubishi Ki-21 Type 97 heavy bombers from the 60th Sentai and BR.20s from the 12th Sentai. Chen led ten I-15bis from the 17th PS into action, and once again the CAF history described how the 17th PS used the 'half-roll, diving' attack technique. This time, there were additional details of how a BR.20 caught fire and crashed within ten seconds of interception having commenced! Three Fiat bombers went down during this action, and the 17th PS was again singled out for recognition. In fact, 17th PS pilots who submitted claims for shared victories were all awarded the One Star Medal.

Normally, shared credit for an aeroplane's demise would be divided between the claimants, and a One Star Medal only awarded when the fractions added up to one victory. This would not be the only example of the Star Medal being presented without adhering to the award criteria – it appears that the latter were ignored when morale needed boosting.

What was telling about Chen's character is that he did not take advantage of this relaxing of the system to 'run up a score' of Star Medals

for personal recognition. In fact, while official historians in the CAF acknowledge that Chen scored five victories, he was only awarded a Two Star Medal. Fellow fighter pilot Hsu, Chi-hsiang summed him up best when he stated that 'Chen did not have a shred of selfishness in him'.

The 17th PS was further rewarded when it returned to operational status by being chosen for conversion to the cannon-armed Dewoitine D.510 fighter. This turned out to be

a 'mixed blessing', however, as the aeroplane's Hispano HS404 20 mm weapon proved to be notoriously unreliable. The spring in the cannon's top-feeding magazine was not strong enough to permit the passing of shells into the weapon's breech when it was being fired in a dive. The 17th PS experienced many stoppages as a result, rendering the D.510 useless when it came to attacking bombers using the unit's proven half-roll, diving attack technique.

During the evening of 11 June 1938 Chen was able to use his half-roll attack technique one last time before his unit received D.510s when the IJNAF's 14th Kokutai sent 27 G3M2s to attack Taipingssu airfield in Chengtu. Approaching the lead bomber of Lt Cdr Toshiie Iriya head-on from above, Chen led his flight of three in a half-roll diving attack. They damaged the G3M, causing it to stream white smoke or fuel vapour. While diving away after his firing pass, Chen may have let the I-15bis gain too much speed for the cockpit side hatches blew open and his flight goggles were whipped away. Chen was forced to break off the attack, allowing all the G3Ms to make it safely back to base.

On the night of 3/4 August 1939 Chen intercepted a raid over Chungking with the help of searchlights, getting close enough to fire his cannon and hit one of the Japanese aircraft. Later, Chen saw burning wreckage on the ground and claimed a bomber destroyed.

On 4 November 1939 the IJNAF mounted a 72-aeroplane raid on Chengtu. This was in retaliation for two Chinese raids on one of its airfields in Hankow that had caused both significant damage and casualties. The commanding officer of the 13th Kokutai, Capt Kikushi Okuda, decided to personally lead the mission, riding in the lead aeroplane.

The CAF scrambled every available aeroplane from Chengtu to intercept the raid. The seven D.510s, led by Chen, patrolled for more than an hour before the Japanese appeared in a sector being defended by another squadron. First to see the Japanese formation, Chen fired his machine guns and rocked his wings as a signal for the others to follow him. The IJNAF bombers had released their ordnance and were headed east, back towards their bases, by the time the D.510s finally caught up with them. Chen, in D.510 P-5921, pulled ahead of the Japanese formation to attack the lead aeroplane head-on. Knowing the tendency for the Hispano cannon to jam when firing in a dive, he led the five D.510s that were able to stay with him in a level attack in formation. After the initial pass, the D.510s turned around to attack from behind, and it was at this point in the action that Chen's fighter was hit in the engine by return fire. On the way back to Taipingssu airfield, his engine stopped and Chen was injured in a forced landing.

Other members of the 17th PS reported that the lead bomber Chen had attacked caught fire and crashed. Since this formation was the first of two to attack Chengtu, it is believed that Chen shot down the G3M carrying Capt Okuda, who crashed to his death east of Chengtu. He was the highest-ranking IJNAF officer to be killed in action up to that point in the Sino-Japanese War.



I-15bis P-7188 *Hsien Luo* (Siam) of the 17th PS/5th PG, which was based at Lanchow in 1939 when Chen, Tse-liu was squadron commander. The inscription honours the Chinese community in Thailand whose donation funded the purchase of this aircraft. The pilot leaning against the lower wing is Hsu, Chi-hsiang of the 17th PS



Dewoitine D.510s in mid-1938 sporting the large side numbers of the 41st PS, which was formed with French mercenaries. The squadron was disbanded after only one action in 1938 following contract disputes with some of the pilots

Ma, Kwok-lim, former deputy commander of the 17th PS who had been promoted to command the I-15bis-equipped 29th PS, employed the half-roll attack technique during the 4 November engagement, leading Polikarpov fighters against the second formation of 36 G3Ms from the Kanoya and Kisarazu Kokutai. Ma reported that, after repeated attack runs, the lead aeroplane in the flight to the right of the formation leader caught fire and crashed between Hsi-tien and Chienyang, to the southeast of Chengtu.

Chinese losses during the action over Chengtu included one I-15bis and one I-16 shot down and both pilots killed. Wreckage of three G3Ms was found east of Chengtu. The Japanese formations were also attacked on their way home by Chinese fighters based at Chungking and Liangshan, with three more G3Ms being damaged and a CAF I-16 shot down, although its pilot bailed out. One of the damaged G3Ms crashed on its way home.

Chen was promoted to deputy commander of the 5th PG in 1940, and in December of that year the group re-equipped with I-15III fighters to counter the A6M Zero-sens that the IJNAF had introduced into combat earlier in 1940. Unfortunately, the I-15III proved vastly inferior to the Mitsubishi fighter.

Chen was killed in action over Chengtu on 14 March 1941 when he led his squadron of I-15IIIs into combat against Zero-sens. Lured down to low altitude by a group of A6Ms strafing Shuangliu airfield, he and both of his two wingmen were shot down. One of the latter who survived the ordeal reported that they were attacked from above and behind by other Zero-sens that had been waiting for them at a higher altitude.

Liu, Che-sheng

As described in Chapter 3, Liu had fought well during some of the major actions in 1937-38, amassing a total of 2,333 confirmed victories. At the end of 1941 Liu's score resulted in him receiving a Nine Star Medal, the highest ever awarded. However, in 1939, there was clear evidence that, occasionally, the criteria for awarding victories and Star Medals were relaxed in an effort to boost morale following the loss of Hankow to the enemy. It would appear that Liu's score benefited disproportionately from this change. This discussion is not intended to diminish in any way his efforts and achievements. However, in fairness to other Chinese pilots whose scores were calculated based on stricter criteria, Liu's award of the Nine Star Medal should be put into context.

On the night of 3/4 August 1939 Liu had taken off alone to intercept a raid on Chungking. He was able to locate the Japanese formation with the aid of searchlights and shoot down one of the enemy bombers.

His next confirmed victory came on 10 June 1940 over Pei-ling, east of Chungking. However, according to the combat reports generated by both the CAF and IJNAF following this engagement, it is clear that the G3M2 of the 13th Kokutai that was shot down had been attacked by multiple I-15bis from the 4th and 5th PGs, with the coup-de-grace being delivered by a Hawk 75 of the 18th Independent PS.

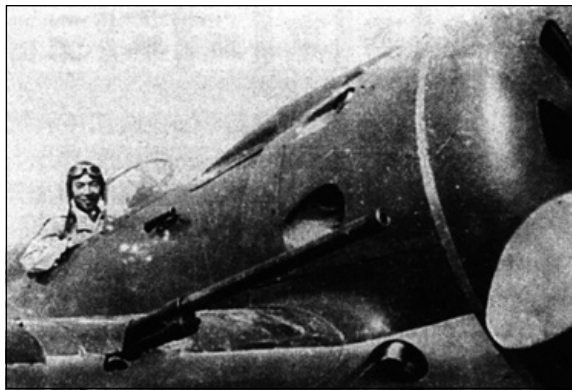
Two days later Liu received credit for 0.04 of a victory for each of the three Ki-21 bombers from the JAAF's 60th Sentai that the CAF claimed as shot down. In reality two had actually collided and crashed while a third was badly damaged but returned to base. On 16 July Liu was credited with two victories, despite this again being the total number of successes claimed by all CAF units engaged. On 11 August Liu received 0.03 of a credit for a 15th Kokutai G3M2 that had been damaged over the target, fallen behind the main formation and then been shot down by multiple Chinese fighters attacking together. Had the strict criteria used earlier in the war been applied throughout the conflict, the total number of confirmed victories awarded to Liu would have been considerably lower than nine.

Kao, You-hsin (高又新)

Kao, You-hsin was born in 1916 in Chin County, Liaoning Province, which was part of Manchuria. In 1931, Kao's family moved to Tientsin to live with Kao's older brother. After graduating from high school in 1935 Kao enrolled in Class 8 of the Central Aviation Academy. He was blessed with exceptional eyesight and did well academically, graduating top of his class. Assigned to the 21st PS/4th PG, Kao saw action during the 1940 defence of Chungking against the IJNAF strategic bombing campaign (Operation 101).

During this period, there was a technological race for supremacy in the air over Szechuan. Following heavy losses during daylight raids in the 1939 campaign, the IJNAF had made changes for 1940. Soviet-made fighters used by the Chinese had enjoyed a sufficient margin of performance over the G3M2 Model 21 to allow them to get into position for high-speed diving attacks from above. To negate this advantage, the improved G3M2 Model 22 was introduced to the 13th and 15th Kokutai of the 2nd Rengo Kokutai (Combined Air Flotilla). The Model 22 had up-rated Kinsei 51 engines that ran on high octane fuel, this combination greatly improving high altitude performance. The IJNAF planned to use the G3M2 Model 22-equipped 2nd Rengo Kokutai to conduct daylight raids, while the 1st Rengo Kokutai would bomb at night using its older G3M2 Model 21s until more Model 22s were available.

On 20 May 1940 the 13th Kokutai mounted a morning attack on Liangshan airfield with 24 G3Ms at the relatively low altitude of 14,700 ft. They were intercepted by eight I-16s from the 24th PS/4th PG, this squadron having received a small number of I-16 Type 17s equipped with ShVAK 20 mm cannon. Using the weapon to good effect, the 24th sent the No 3 aeroplane in the 31st Shotai of the 1st Chutai down in flames. The No 2 aeroplane in this Shotai was also hit, the badly damaged bomber crash-landing after it had limped back to Japanese-held territory. Two of the crewmen onboard were killed. The I-16s also shot down a JAAF Mitsubishi Ki-15-II reconnaissance aeroplane from the 16th Independent Chutai. However, the action proved costly for



Hsu, Chi-hsiang in the cockpit of an I-16 Type 17 armed with ShVAK 20 mm cannons. This may have been one of ten Type 17s delivered to China in late 1939. A number were allocated to the 24th PS or the 4th PG. The former was able to use the ShVAK-armed Type 17 to good effect on 20 May 1940 when its pilots shot down two G3M2 Model 21s from the 13th Kokutai. These losses prompted the IJNAF to switch to the higher-flying G3M2 Model 22 for daylight raids over Chungking and Chengtu. The units equipped with G3M2 Model 21s conducted raids at night until they received Model 22s

the 24th, for two of the valuable cannon-armed I-16s were damaged in forced landings.

Two days later the IJNAF came back with the high-flying G3M2 Model 22s of the 2nd Rengo Kokutai, supported by three C5M high-speed reconnaissance aeroplanes. The two Japanese bomber formations initially flew towards Chungking, causing the Chinese to scramble their interceptors. The main bomber formation then circled 50 nautical miles from its target while the C5Ms monitored the movements of the Chinese fighters. When the CAF fighters ran low on fuel and landed at Pai-shi-yi airfield to replenish their

tanks, the C5M crews radioed the waiting bombers and told them to attack the airfield. Because the Chinese had broken the IJNAF tactical codes, they were able to read the messages intercepted from the C5M relatively quickly. They could tell, for example, that the crews were counting the number of Chinese aircraft on the ground at the airfields and sending that information to the bombers.

Despite intercepting the radio message, four I-15bis from the 29th PS and an I-16 from the 24th PS were caught on the ground by the bombing and destroyed. Six I-15bis and two I-16s were also damaged. The IJNAF estimated that it had destroyed 15 Chinese fighters on the ground.

On 26 May the 1st Rengo Kokutai sent its 36 G3M2 Model 21s, along with two other formations from the 2nd Rengo Kokutai, to attack Chungking in daylight. Following the losses of four days earlier, the CAF's 4th PG changed tactics. Having received warning of approaching Japanese aeroplanes from the air raid warning network, the group scrambled two I-16s from the 24th PS at 1140 hrs to drive away three C5M reconnaissance aeroplanes flying ahead of the bombers.

A small group of four I-15bis from the 21st PS and four Hawk IIIs from the 22nd PS were then sent aloft to search for the bombers, while other fighters were held in reserve on the ground. Sure enough, the Japanese bomber formation circled out of range, waiting for the Chinese fighters to run low on fuel. At 1345 hrs the 4th PG tried to 'change the guard', sending the ground reserve aloft and calling back the patrolling aeroplanes to refuel. However, instead of returning to their own base, the fighters went to widely dispersed airfields to refuel. Seeing this, a C5M reconnaissance aeroplane radioed the G3M bombers to head for their targets.

Two of the patrolling Hawk IIIs from the 22nd PS were on their way to a dispersed site for fuel when they saw the Japanese formations head towards their targets. Deputy commander of the 22nd PS Lt Yuan, Chin-han led his wingman on an intercept course for one of the formations. This turned out to be 36 G3M2 Model 21s from the 1st Rengo Kokutai that were headed for government offices and a radio station in the western Chungking suburb of Hsiao-lung Kan. The Hawk III pilots attacked the formation, but the wingman's 0.50-calibre machine guns soon jammed and Yuan had to carry on alone. He was able to hit and damage the left engine of one of the bombers in the 3rd Shotai, the G3M2 dropping back from the rest of the formation, which slowed down to try and protect the straggler. Yuan concentrated his fire on the undamaged right engine;

before he ran out of ammunition, Yuan had the satisfaction of seeing both engines on the straggler smoking badly.

Two 21st PS I-15bis now joined in the attack. Capt Chen, Sheng-hsing, commander of the 21st PS, and his wingman Lt Kao, You-hsin were headed to Paishi-yi to refuel when they also spotted the approaching Japanese bombers. Climbing back up to altitude, they saw the 1st Rengo Kokutai formation heading their way, with a straggler lagging behind. Chen and Kao positioned themselves to attack the latter, but by the time the bombers were in range the rest of the formation had slowed down to 'box in' the straggler and offer it protection. Kao found himself flying through intense fire from the other bombers as he tried to get at the straggler, despite Chen attacking the formation from the opposite side in an effort to distract some of the gunners. The straggler's speed and altitude steadily dropped until the rest of the formation could no longer stay with it. The pilot then tried to head for a cloud but Kao clung to the bomber's tail, firing away until it finally hit the ground. He was awarded a third of a share for this victory.

During the summer of 1940 the IJNAF despatched ever larger formations that attacked their targets at higher altitudes – in June, G3M2 Model 22 formations were encountered at 23,000 ft. The Soviet-made fighters of the period, with their relatively low octane-rated fuel (70-74), simply did not have the performance necessary to effectively engage the G3M2 Model 22s fitted with supercharged engines using 87 octane fuel. Often, the Chinese fighters could only make a single firing pass on the Japanese bombers, after which they were unable to catch them up to make a second attack. Few successful interceptions occurred, and when they did they often had more to do with luck than skill. IJNAF records showed that only nine G3Ms were lost during the 1940 campaign. This may well have been why criteria for the awarding of Star Medals was relaxed during this period in an attempt to boost flagging morale in the CAF.

In August the Chinese tried using time-fused 22-lb bombs suspended beneath parachutes to break up the large Japanese formations. On the 11th Maj Cheng, Shao-yu, commander of the 4th PG, led six I-15bis from the 21st PS, each carrying four parachute bombs, in an attack on a 90-strong formation of Japanese bombers. Lt Liu, Chi-sheng could not keep up with his squadronmates and did not release his bombs. The remaining five pilots, however, worked their way into a position above and in front of the enemy formation, where they released the bombs at a range of approximately 2000 ft. The timed fuse detonated the bombs about 250 ft in front of the Japanese bombers. The IJNAF claimed that little damage was done, but 4th PG I-15bis were able to take advantage of the confusion caused by the bombs to shoot down one G3M with machine gun fire.

On 13 September the IJNAF played its 'trump card' when it gave the A6M Zero-sen its combat debut with the 12th Kokutai. Not only did the Mitsubishi fighter have the range to reach Chungking and Chengtu, its performance was far superior to anything then fielded by the CAF. The 13th Kokutai sent 27 G3Ms towards Chungking to draw the Chinese fighters up for the 13 A6Ms led by Lt Saburo Shindo. The Chinese formation consisted of nine I-16s and 25 I-15bis, one of the latter being flown by Kao. During the ensuing action the Zero-sens bounced the CAF fighters as they waited to engage the bombers. No fewer than 13 Chinese fighters and ten pilots were lost. Fighting for his life, Kao shot A6Ms off the tails of three



An I-15bis of the 23rd PS in 1940, little changed from the version first delivered to China three years earlier – except for the substitution of a 0.50-calibre machine gun for one of the fighter's four ShKAS weapons. On 13 September 1940, Chinese pilots like Kao, You-hsin and Hsu, Chihsiang flew I-15bis very similar to this one against the Japanese

Chinese fighters. In one case, he was able to close to within 160 ft of an opponent and score hits as the Zero-sen chased another I-15bis. Kao was probably responsible for one of the three A6Ms that were damaged during this action.

Following the introduction of the Zero-sen, Chinese fighter units avoided combat, shuttling between dispersed airfields. However, A6Ms, supported by the ever present C5M reconnaissance aeroplanes, were often able to track down and attack CAF fighters on the ground. Nevertheless, when the Zero-sens

were not present the Chinese fighters would hit back at Japanese bombers. On 21 May 1941, for example, seven I-15IIIs from the 21st PS/4th PG attacked 27 unescorted G3Ms from the Mihoro Kokutai that were bombing Lanchow. One was shot down and another badly damaged, suffering more than 70 hits.

The following day the Mihoro Kokutai returned to Lanchow with 25 G3Ms, but this time a formation of Zero-sens swept the area looking for Chinese fighters prior to the bombers' arrival. The 24th PS/4th PG was ordered to fly to Chung Chuan Chun airfield, north of Lanchow, to avoid the raid. Six of its I-16IIIs had just landed when all 25 G3Ms passed overhead. Kao, who had been transferred to the 24th earlier in the year, took off (his engine was still running when the bombers appeared), anticipating that the Japanese would come back to attack the airfield.

Climbing to 16,400 ft, he spotted nine bombers that had reversed their course and were now heading for Chung Chuan Chun. Making multiple firing passes at the group, Kao disrupted the G3Ms' attack long enough to allow the five remaining I-16IIIs on the ground to have their engines restarted and the pilots takeoff – only one was damaged by fragments from the 45 132-lb bombs that were dropped. Kao downed the G3M flown by Lt Shin-Taro Hashimoto and shot up another. The only damage suffered by his aeroplane was a hole in the propeller caused by faulty synchronisation gear. The rest of the Mihoro Kokutai, escorted by the Zero-sens, bombed Lanchow and never found the Chinese fighters. This, however, was a rare success for the CAF in its one-sided fight with the A6M. Other groups were hit hard, especially the 5th PG, which lost 32 I-15IIIs and I-16IIIs between March and July 1941.

In June Germany invaded the USSR and supplies of Soviet aircraft ended. Things could not have looked worse for the CAF at the time. It was now that events on the international stage intervened. Increasingly concerned about Japan's expansion into China and French Indochina, the US administration imposed an oil embargo on Japan in August 1941. High octane aviation gasoline, which the Zero-sen relied on for its high performance, would no longer be available through imports from the US. Ultimately, American diplomatic efforts to halt Japanese aggression failed, leading to the IJNAF attack on Pearl Harbor and war in the Pacific.

CHINESE-AMERICAN COMBINED WING

With America's entry into World War 2, aid was made available to the Chinese to rebuild their air force. However, it soon became clear that the rebuilding process was not going to be an easy one. Technology and aircraft performance had moved far beyond the Soviet aircraft the CAF had been operating since the late 1930s. Simply supplying it with advanced aircraft without giving pilots the proper training was not the solution, as the 4th PG discovered to its cost.

Pilots from the group recalled the excitement of receiving new Republic P-43A Lancer fighters, but then came the challenges. The new aeroplanes had arrived with very little documentation in the way of servicing manuals or pilot's notes. There were equipment and procedures that were unfamiliar or even completely unknown to the Chinese. Unsurprisingly, therefore, accidents were common, sometimes with tragic consequences. A number of 4th PG pilots perished, including experienced aviators like Capt Chen, Sheng-hsing, commander of the 21st PS. The P-43A had the added problem of suffering from leaking fuel tanks that could lead to in-flight fires – 4th PG commander, Maj Cheng, Shao-yu, was killed when his Lancer burst into flames during a training sortie. Both Chen and Cheng had survived battling Zero-sens in I-15bis biplanes, only to be killed in accidents flying the P-43A.

The solution to these problems was better training for both air- and groundcrews. Programmes were set up to send Chinese pilots to India and even the Continental US to receive flight training. This culminated in the establishment of the CACW. In the meantime, some of the more naturally gifted pilots like Kao, You-hsin, and Chow, Chi-kai were able to master the P-43A and use it effectively in combat.

Kao, You-hsin

On 12 January 1943, Kao, who had been promoted to command the P-43A-equipped 21st PS, took off from Liangshan airfield, in Szechuan, with a wingman to reconnoitre Japanese airfields along the Yangtze River. The wingman became separated from Kao due to bad weather. Kao proceeded alone to the Ichang area, where he spotted two Nakajima Ki-43 'Oscar' fighters. Kao worked his way into a position above and behind the pair, before making a diving attack. He claimed to have shot down the trailing Ki-43.

A recently delivered P-43A is assembled by USAAF personnel prior to the aircraft being handed over to the CAF. The Lancers, with their unfamiliar equipment and leaking fuel tanks, caused a great deal of trouble for the 4th PG. Even pilots with plenty of flying experience in hard-to-handle Soviet aircraft were having accidents with the Republic fighter. In-flight fires further eroded confidence in the P-43A. Only the most experienced and gifted pilots like Kao, You-hsin and Chow, Chi-kai were able to get the best out of the type. Chow took full advantage of its excellent high altitude performance provided by the turbo-supercharger. He was the first to shoot down a high-flying Ki-46-III in the China theatre of operations. Kao, You-hsin also claimed a number of victories while flying the P-43A





A P-43A of the 4th PG has its weapons boresighted at Kunming in early 1943. The fighter is devoid of any individual markings

Kao, You-hsin in a late war photograph, showing his decorations that included the Order of the Blue Sky and White Sun – the highest medal in the Republic of China



Eleven months later the 4th PG flew missions in support of the besieged city of Chang-teh, in Hunan Province. On 29 November Kao led four 21st PS P-43As from En-shih airfield as escorts for 22nd PS P-40M Warhawks that were conducting a re-supply mission. Each of the latter aircraft carried a drop tank filled with 6310 7.92 mm rifle rounds wrapped in cotton waste, the tanks being dropped from low altitude into Chang-teh.

Whilst the Warhawks were delivering their unusual cargo, Kao spotted eight Kawasaki Ki-48 'Lily' bombers from the 16th Sentai approaching from the east. He duly led the P-43As in a diving attack on the bombers from a height of 20,000 ft out of the sun. After the first pass, which was concentrated on the leading flight, three bombers were seen trailing smoke or fuel vapour. Kao repositioned for a second attack on the lead Ki-48 and claimed to have shot it down northeast of the village of Han-shou. The remaining bombers jettisoned their ordnance and fled to the northeast. The P-43As then tangled with the second flight of bombers, which was escorted by six Ki-43s from the 25th Sentai. One of the Japanese fighters was seen diving away streaming white smoke. A solitary Lancer was damaged, its pilot force-landing after returning to Chinese-held territory.

On 22 May 1944 Kao led eight P-40Ns from Hsian to bomb and strafe Japanese motorised vehicles reported near the town Chang-ya. Two separate columns were found and attacked with good effect. Kao's Warhawk was hit by ground fire, however, and had to force-land behind Japanese lines. He was able to evade capture and return to Chinese territory.

On 8 June Kao led two P-40Ns from Hsian on a strafing mission on Kwanyin Tang. They ran into six Ki-43s en route and claimed to have shot down three of them, two falling to Kao.

From late July the CACW and the re-designated 4th Fighter Group (FG) flew numerous ground attack missions against Japanese positions in and around Hengyang. Kao claimed aerial victories on the 30th and the 31st, as well as a strafing kill on the Japanese-occupied Hengyang airfield on 3 August.

On 20 November 1944 Kao led seven P-40s in a bombing and strafing attack on supply dumps at Shili-pu, in Hupeh's Shayang County. Hit by ground fire while over Chienkiang, Kao was again forced to bail out behind Japanese lines. This time it took him 35 days to return to Paishi-yi airfield, local farmers helping Kao to evade capture. This included dressing him up in women's clothing to help get him past a Japanese checkpoint.

On 30 May 1945 Kao led 16 P-51 Mustangs from the 4th FG on a long-range fighter sweep to Nanking from Eh-Shih. The group strafed the Ming Palace airfield, destroying a large transport aeroplane on the ground. They were challenged by approximately 30 Ki-43-II fighters from the 9th and 48th Sentai during the mission, the CAF pilots claiming ten victories without loss. One kill was credited to Kao for his final aerial success of the war.

During his lengthy service, Kao was awarded the Eight Star Medal as well as the Order of the Blue Sky and White Sun.

Chow, Chi-kai (周志開)

Chow, Chi-kai was born in 1913 in Luan County, Hopeh Province. Chow came from a wealthy family, his grandfather being an official in the Machu court while his father was a judge. Chow was described as an intelligent but somewhat aloof young man. With his privileged status, he could have easily avoided military service, but he enrolled in Class 7 of the Central Aviation

Academy at the age of 16, straight out of high school. Classmates recalled that Chow did not really fit in with the other cadets, although everyone learned to respect him for his flying skills. Assigned to the I-15bis-equipped 22nd PS/4th PG, Chow saw action during the December 1939 campaign to defend Kwangsi. On 22 December he shared in the destruction of a G3M from the 15th Kokutai over Liuchow with his squadron commander, Capt Chang, Wei-hua.

During the 1940 defence of Chungking, Chow became familiar with the frustrations of trying to intercept high-flying G3M2 Model 22s. Nevertheless, he quickly earned a reputation for aggressiveness and pressing home his attacks. On one occasion, Chow's Hawk III was left with more than 100 holes from a detonating 20 mm cannon shell and machine gun rounds. Unfortunately, this aggressiveness was not rewarded with greater success.

In 1942 the 4th PG converted to P-43As and P-40Es. Chow was promoted to deputy commander of the 24th PS, which was equipped with Lancers. In late October 1942 the CAF's Third Route Headquarters in Chengtu ordered the 4th PG to send fighters to Nancheng to try and intercept high-flying JAAF reconnaissance aircraft.

On the morning of 24 October Chow and Lt Tu, Chao-hua – two of the most experienced pilots in the 4th PG – each flew a P-43A to the forward airfield at Nancheng. Shortly after they arrived, reports started coming in from the air raid warning network that was tracking the progress of a high-flying reconnaissance aircraft heading into the area. The two P-43As were scrambled at 1040 hrs, the pilots being updated on the progress of the intruder by radio. At 1155 hrs Chow spotted the JAAF twin-engined reconnaissance aeroplane over Yang County. He duly led the way in a diving attack, opening fire at a range of 980 ft. The JAAF aeroplane broke left, but Chow easily followed, hitting its left engine and setting it on fire. Crashing near Si Bao, in Yang County, the destruction of this aircraft gave the P-43A its first aerial success in CAF service.

Chow had downed a Mitsubishi Ki-46-III 'Dinah' reconnaissance aeroplane. Five bodies were found in the burnt-out wreckage, including



Curtiss Hawk IIIs assigned to the Aviation Academy in Kunming as advanced pursuit trainers, hence the two-digit side number. Hawk IIIs ordered from the US and delivered as kits were initially assembled at the Shao-kwan Aircraft Factory. Later on, when Kwangtung was occupied by the Japanese, the factory was transferred to Loiwing, where it continued to assemble Curtiss aircraft delivered as kits. These included a handful of Hawk 75Ms as well as Hawk IIIs. Chronically short of aircraft, in 1940 the CAF decided to re-equip the 22nd PS/4th PG with Hawk IIIs transferred from the Academy. Some of its Hawk IIIs were only equipped with two 7.92 mm machine guns, which meant that they had to have a 0.50-calibre machine gun fitted. Chinese workshops also started replacing a ShKAS machine gun with a 0.50-calibre weapon in I-15bis and I-16s during 1940. Future ace Chow, Chi-kai saw his first action flying Hawk IIIs with the 22nd PS



Chow, Chi-kai in the cockpit of a Hawk III, probably at the Aviation Academy in Kunming. Note that the 2408 side number of this aircraft has been applied in the earlier, larger format. Hawk IIIs transferred to the Academy often retained their original side numbers. Indeed, only newly assembled aircraft were marked with the Academy's single- and two-digit side numbers. When the 22nd PS was re-equipped with Hawk IIIs, they were described as having '22xx' series aircraft numbers. Unfortunately, no photographs have been located to show the format of these aircraft numbers in 1940



A group of enthusiastic pilots from the 4th PG smile for the camera. Clearly, they had yet to experience the unreliability of the P-43A

This photograph of Chow, Chi-kai in flying gear was taken from an ROCAF publication



a woman locked in handcuffs and leg irons. Her unexplained presence added to the mystery surrounding the type of mission being flown by the aircraft when it was shot down.

On 6 June 1943, Chow, who had by now been promoted to the rank of captain and made commander of the P-40E-equipped 23rd PS, was involved in an action that he was subsequently best remembered for. The 4th PG had been ordered to bomb and strafe a Japanese Army command post on Hill 628 on the

east bank of the Nie-Chia River, Maj Li, Hsiang-yang leading 13 bomb-carrying P-40E/Ks on the mission. Over the target, the Warhawk pilots encountered heavy anti-aircraft fire. Indeed, the P-40 of deputy commander Capt Chang, Kwang-yun had a wing shot off, and he just had enough altitude to parachute to safety.

When the group returned to Liangshan airfield it was caught on the ground by a JAAF bombing raid. On this occasion the normally efficient Chinese air raid warning network had failed to detect the incoming aircraft, possibly because the JAAF Ki-48s and escorting Ki-43s were misidentified as returning CAF Lockheed A-29 Hudson bombers escorted by Vultee P-66 Vanguard fighters – all four types had radial engines. By the time nine Ki-48s from the 3rd Chutai, 90th Sentai arrived overhead and started dropping their bombs, all the 4th PG pilots had already cut their engines and climbed out of their aeroplanes.

Chow immediately ran back to the flightline and climbed into the cockpit of a Warhawk, quickly starting its engine. Without even strapping in, he taxied out and took off in the midst of falling bombs. No one knows for sure, but he may have been in his personal aircraft, P-40E No 2301, P-11026.

Climbing rapidly, Chow closed in on the nearest flight of three Ki-48s – the No 2 Shotai. First, he attacked the No 3 aircraft. After an initial burst, Chow could see that he had silenced the rear gunner as his guns were pointed skyward and he was nowhere to be seen. Chow then concentrated on the engines, and after a few bursts the bomber went down in flames. Chow then went after the lead Ki-48, which dropped out of formation with its engines smoking badly. The bomber managed to limp home and crash-land. Chow then attacked the No 2 Ki-48, again silencing the rear gunner before flying alongside the cockpit and signalling with hand gestures for the JAAF pilot to descend. Sgt Tateno was having none of this, however, and he tried to ram the P-40. Chow easily avoided the Ki-48, repositioned for another pass and shot up its engines until they caught fire. The bomber then fell away and crashed, taking its brave pilot with it.

Chow returned to a hero's welcome at Liangshan. A total of 11 P-40s had been completely destroyed and three others damaged, with Chow's single-handed heroics being the only bright spot in a disastrous afternoon. For his efforts, Chow was awarded the Order of the Blue Sky and White Sun.

Chow was killed in action on 14 December 1943 while on a reconnaissance mission to enemy-occupied Hsiao-kan airfield. Chow



and Kao, You-hsin had set off together, each in a P-40N. When they became separated Kao went north to reconnoitre the Kingmen and Ichang area while Chow went south to Ankang and Shi-shou. Only Kao returned to base. Chow's P-40N was attacked from behind and below by two Nakajima Ki-44 'Tojos' from the 85th Sentai, which scored 12 hits, holing the wing tanks. Having lost too much fuel to get back to base at En-shih, Chow was killed attempting to force-land in the valley near Lung-tan. Prior to his death, Chow had received the Five Star Medal.

Tan Kun (譚鯤)

Tan Kun was born in 1918 in Wenshan County in the southwestern province of Yunnan. Dropping out of Yunnan University when war broke out in 1937, he enrolled in Class 9 of the Central Aviation Academy. A softly spoken, thin individual with a pale complexion, Tan was a far from imposing figure. However, once he got into combat it was a different story.

Like other members of his class, Tan greatly benefited from the training provided by the USAAF. He was also fortunate enough to be assigned to the 7th Fighter Squadron (FS) of the 3rd FG, which was part of the CACW. Tan would see plenty of action with the wing in 1944. For example, he participated in the 4 March attack on the Japanese airfield at Chiungshan, near Haikou City on Hainan Island. Tan, flying one of 16 P-40Ns from the 3rd FG that took part in the mission, destroyed a bomber that was taxiing out to the runway. Pulling up from his strafing run, he spotted four Ki-43s diving from above. One latched onto a P-40 flown by Capt Armit Lewis. Tan, still at low altitude following his strafing run, was able to pull up from behind and below the Japanese fighters and claim one shot down.

During this same action Tan's Chinese squadron co-commander, Hsu, Chi-hsiang, exacted some personal revenge. Three-and-a-half years earlier, Hsu had survived a crash-landing in an I-15bis after it had been shot up by an IJNAF A6M Zero-sen. Hainan Island was one of the few places in China where the IJNAF had based the then new Mitsubishi fighter, and during the 4 March attack Hsu had spotted three such machines with black cowlings preparing to land. With their undercarriages extended, the IJNAF

A P-66 Vanguard in CAF markings has its engine run up. A number of Chinese units received this type and the 11th PG saw action using it. Other groups like the 3rd PG turned in their P-66s when they became part of the P-40-equipped CACW. The P-66 proved inferior and vulnerable to JAAF fighters and was quickly replaced. Indeed, it was credited with only one confirmed victory while in Chinese service. Experienced 11th FG squadron leader Hu, Chuang-ru shot down a Ki-48 on 6 June 1943, bringing total JAAF losses to four for the day. Hu's son was an F-104G pilot, and he was credited with shooting down a Communist Chinese MiG-19 in 1967. They are the only father-and-son combination in the ROCAF to be credited with aerial victories

Members of the 23rd PS/4th PG pose with their recently delivered P-40E/Ks at Liangshan in early 1943. The 23rd's Chow, Chi-kai was to make a name for himself in a Warhawk on 6 June 1943 during a surprise attack by the JAAF on Liangshan. Despite falling bombs, Chow managed to take off and shoot down two Ki-48 bombers, with a third example being so badly damaged it subsequently crash-landed. The second P-40K (2304) in this photograph was involved in another famous action on 31 May 1943, when Tsang, Hsi-lan shot a Ki-44 off the tail of Lt Col John Allison during a raid on Kingmen airfield





The wreckage of the I-15bis flown by Hsu, Chi-hsiang after it was shot down during the combat debut of the A6M Zero-sen fighter on 13 September 1940. With his engine having been disabled, Hsu glided down for a forced landing, closely pursued by the IJNAF fighters. The I-15bis overturned, and its tail broke off during the landing. Hsu was uninjured, but his aircraft and his amenities kit were write-offs. One of the Zero-sens had scored a direct hit with a 20 mm cannon shell in the luggage compartment of the I-15bis – Hsu found his toothbrush with all of its bristles blown off! (Hsu, Chi-hsiang)

Softly spoken, thin and pale, Tan Kun did not strike an imposing figure when out of the cockpit. However, strapped into a P-40N he proved very effective in combat. Tan was from the southwest province of Yunnan, near the border with French Indochina. The diversity of backgrounds of the CAF aces reflected the unity of national effort in the struggle to resist the Japanese invaders. Young men from all parts of China (and, indeed, the world) joined in the war effort.



fighters were easy targets for Hsu. Taking full advantage of the situation, he attacked the flight leader – perhaps an instructor – and shot him down.

According to US records, Tan was only credited with the ground kill on 4 March, although his aerial claim appears in the official CAF history.

On 11 May Tan flew one of nine P-40Ns covering two others armed with bombs that were sent to destroy a river crossing at Tan Chu. When three Ki-43-IIs attempted to intercept the bomb-carrying Warhawks, he followed flight leader Lt Yeh, Wang-fei from the 7th FS/3rd FG in a diving pursuit of the 'Oscars'. The

JAAF pilots were forced to abandon their attack and dive away. Climbing back up to altitude, Tan found seven P-40Ns in a dogfight with eight Ki-43-IIs. Attacking a JAAF fighter head-on, he scored sufficient hits to knock the 'Oscar' out of the fight. Tan then targeted another Ki-43-II, whose pilot rolled his aircraft onto its back and dove to away to safety.

Five days later Tan was part of a flight of four P-40Ns led by Maj Bill Reed that reconnoitred the Loyang area. Taking off from Ankaung at 1410 hrs, the Warhawk pilots flew to Loyang but found no sign of the enemy. The formation then headed to Lung-men, where Maj Reed and Lt Wilbur Walton intercepted a Ki-43 and shot it down. A short while later Reed also downed a Mitsubishi Ki-51 'Sonia' light bomber from the 44th Sentai. Tan then spotted three Ki-44s from the 9th Sentai trying to sneak up on the P-40Ns from the southeast. Radioing a warning to Maj Reed, Tan turned and dived towards the 'Tojos'. After making a head-on pass, he was able to pull behind one of the Ki-44s and shoot it down.

When he tried to rejoin the others, Tan came under attack from another flight of Ki-44s. Forcing them to overshoot, he then dived after them. Singling one out, Tan shot at it until the fighter fell away out of control. At this point Tan's P-40N was also hit by two Ki-44s that had got onto his tail – the Warhawk's rudder controls were shot away. Tan pushed the throttles to the firewall, went into a dive and radioed for help. Although he was able to elude his pursuers, he then discovered that his fighter had been hit in the wing tank and had lost a lot of fuel. A short while later

Tan belly-landed on a sand bank in a river near a Chinese-held town. Maj Reed and Lt Walton also claimed a Ki-44 each, JAAF records showing that the 'Tojo'-equipped 9th Sentai lost two pilots killed in action that day. Although Tan's claims were not recorded or confirmed in US records, they appeared in the CAF history.

During the afternoon of 29 August Lt Meng, Chao-yi, deputy commander of the 28th FS/3rd FG, led Tan and 12 others in an attack on a Japanese supply depot at Shayang. The bomb-carrying P-40Ns hit

the target, setting fire to a fuel dump. Shortly thereafter the group was intercepted by 15 JAAF fighters and a big dogfight ensued. While some Chinese pilots identified the fighters as Ki-43s, the 3rd FG report described them as having 'similar level and diving speed as the P-40N, and armed with large-calibre machine guns'. These aircraft may have been Nakajima Ki-84 'Franks' from the 22nd Sentai. Regardless of their identity, the CACW pilots claimed nine victories in total – one of the kills was credited to Tan. Lt Meng failed to return and three more P-40Ns were damaged.

On 5 January 1945 the 3rd FG sent 23 P-40Ns and five P-51Bs to attack Wuhan airfield. Fifteen of the Warhawks carried four parafrag bombs each, and these were used by the group to destroy nine JAAF aircraft on the ground. A further eight fighters (six Ki-43s and two Ki-44s) were shot down. Two P-40Ns were lost to ground fire and their pilots killed and a P-51B was damaged in aerial combat, although its pilot managed to nurse the fighter back over friendly territory before he bailed out. Tan claimed a Ki-43 and a Ki-44 destroyed in the air.

Based on the Chinese version of his combat record, Tan ended the war with eight victories to his name, earning him an Eight Star Medal.

Wang, Kwang-fu (王光復)

Wang, Kwang-fu was born in Tientsin in 1914, the son of a university law professor who had served as a government minister during the early days of the republic in Peking. Despite coming from a family of scholars and academics, Wang chose to join the military, enrolling in Class 9 of the Central Aviation Academy in 1935.

With the American entry into World War 2 Wang had the opportunity to receive advanced training from the USAAF in India, after which he was assigned to the 7th FS/3rd FG. There are some discrepancies in the records over when he scored his first confirmed victory, as USAAF documentation credits Wang with a fighter shot down on 25 June 1944 – the JAAF's 9th Sentai lost three Ki-44s and a pilot on this date. However, other sources indicate that his first victory came on 28 July.

Wang was assigned to 'Blue Flight', led by Maj Hsu, Chi-hsiang (the Chinese co-commander of the 7th FS), as a wingman and later worked his way up to flight commander. He was credited with three Ki-44s damaged on 18 July and one Ki-44 damaged five days later over Yanglow-shi. On 28 July Wang downed a 'Tojo' and damaged a second during an escort mission for B-25s targeting bridges over the Yellow River.

On 27 October Lt Col Reed led 16 P-40Ns on a long-range mission to attack rail and river traffic near Hankow, with Kingmen airfield as a target of opportunity on the way back home. After completing its strafing missions the group proceeded to Kingmen, arriving just as a group of Ki-48s from the 16th Sentai, escorted by Ki-43s from the 25th Sentai, were preparing to land. Kingmen had been hit earlier in the day, and it was thought that the JAAF would not expect another raid, especially so late in the afternoon, since it would be dark by the time any attacking aeroplanes returned to Chinese bases in Szechuan. As a result, the JAAF aircraft landing at the airfield were caught completely by surprise. The Ki-48s scattered while the Ki-43s tried to protect them.

Wang picked out a bomber trying to flee to the southeast at low altitude. Quickly overtaking his quarry, Wang set it on fire with two short bursts.



Wang, Kwang-fu, born in Tientsin, was the son of an academic who represented China at the Versailles Peace Conference in 1919. Wang's siblings, like many intellectuals of the period, supported the Communist Party. Indeed, his sister married Liu, Shao-qi, who later became the Chairman of the Communist People's Republic. Wang, however, remained loyal to the Nationalist cause and retreated with the ROCAF to Taiwan, not seeing the members of his family until China re-opened its borders in the 1980s

The first Mustangs supplied to the CAF were P-51Bs retired by the Fourteenth Air Force. When there were sufficient aircraft available, new P-51D/Ks were also delivered to Chinese units. Initially, as seen here, many of these new Mustangs, including those in the CACW, did not carry distinctive markings, retaining the overall natural aluminium finish with not much more than anti-glare panels and national insignia. It was only later on that some in the CACW began to sport 'sharkmouth' unit insignias. This post-war photo of a 4th FG Mustang shows little in the way of markings except for the spinner



The Ki-48 crashed into woods next to a village southeast of the airfield. Turning back towards Kingmen, Wang saw two Ki-43s 'diving for the deck' with top cover P-40s on their tail. One of the 'Oscars' soon crashed, and Wang latched onto the tail of the second Ki-43. He started shooting at a range of 1000 ft and continued firing until he had closed to 500 ft. The Ki-43 caught fire and crashed into rice fields east of the airfield.

The top cover P-40s flushed out another 'Oscar' a few minutes later, the JAAF fighter diving past Wang. Giving chase to the 'Oscar', he flew directly across the airfield and shot it down southwest of the runway. Turning back towards Kingmen, Wang then saw a third Ki-43 being chased by Lt Heyward Paxton. Together, the two pilots shot the fighter down, each receiving a half credit. Wang was the top-scoring pilot of this action with 3.5 victories to his name. Every one of the aeroplanes claimed was seen to crash by Wang and his wingman.

On 7 March 1945 the 3rd FG mounted a long-range raid on Nanking from Laohokow airfield. By this time the 3rd FG had received P-51K Mustangs, and Wang used one to dive-bomb and strafe airfields in the Nanking area. Over the large Ta Hsiao Chang airfield he claimed a Ki-44 destroyed for his final aerial victory of the war. According to USAAF records, his victory total was 5.5. Based on his Chinese records, however, Wang was awarded the Eight Star Medal.

Tsang, Hsi-lan, from Shangtung Province, enrolled in the Aviation Academy straight out of high school



Tsang, Hsi-lan (臧錫蘭)

Tsang, Hsi-lan was born in Lao-shan, Shantung Province, in 1917. Enrolling in Class 10 of the Central Aviation Academy after finishing high school, he graduated in 1940 and was assigned to the 23rd PS/4th PG. After re-equipping with P-40Es and a small number of P-40Ks, the 22nd and 23rd PSs assigned a number of its pilots to fly missions with the USAAF's 75th FS/23rd FG so that they could gain combat experience.

On 31 May 1943, Maj Li, Hsiang-yang, commander of the 4th FG, led eight CAF P-40s and two Warhawks from the 75th FS on an escort mission for USAAF B-24 bombers attacking Kingmen airfield. When Li had to turn back due to mechanical problems, Capt Chow, Chi-kai took over as leader. Nearing the cloud-covered target area, 75th FS CO and



ace Lt Col John R Alison descended alone to check on their location. Suddenly, he was confronted by three Ki-44s from the 33rd Sentai climbing rapidly up through the clouds. Although Alison was initially astonished by the new Japanese fighter's rapid rate of climb, he had the presence of mind to chase after the enemy aeroplanes, firing as he went – he claimed to have hit one that fell off into a spin.

Alison was then targeted by a fourth Ki-44 that had also come up through the cloud and latched onto his tail without the American spotting him. His P-40E was hit hard, with a cannon shell severing the fighter's rudder cable. Alison radioed for help while trying to evade the closely pursuing Ki-44, which continued to register hits on his Warhawk. Suddenly, Alison saw streams of tracers passing over his cockpit. At first he thought a P-40 was shooting at him, but it was Tsang coming to his aid, shooting the Ki-44 off his tail. The 33rd Sentai lost Capt Yatsuto Ohtsubo, leader of the 1st Chutai, killed in action and had Lt Namai wounded during this action.

Tsang was awarded the US Silver Star for saving Lt Col Alison, and the US administration, keen to encourage the Chinese to contribute more to the war effort, provided the CAF with four brand new P-40Ms in recognition of his success. These aircraft were supposedly christened *Hsi-lan Nos 1 to 4* in recognition of Tsang, who was considered to be their 'donor'.

Tsang, who was subsequently promoted to command the 8th FS/3rd FG, led five P-40Ns from Ankang airfield as cover for six bomb-carrying 7th FS Warhawks in an attack on Chengchow railway station on 2 June 1944. Three trains, a locomotive and eight trucks had been destroyed by the time JAAF fighters arrived on the scene – the CACW pilots reported encountering four Ki-43s and six Ki-44s. After a 20-minute battle, during which more JAAF fighters were reported to have joined in, CACW pilots claimed four 'Oscars' and two 'Tojos'

Tsang, Hsi-lan receives the US Silver Star for his role in the 31 May 1943 raid on Kingmen airfield. Tsang, then a member of the 23rd PS/4th PG, joined the USAAF's 23rd FG on a mission escorting bombers sent to attack Kingmen airfield. During the action, Lt Col John Alison's P-40 had its rudder cable severed by a lucky shot from below and behind. Tsang came to his aid, shooting down a Ki-44 that was closely pursuing Alison. Eager to encourage the Chinese, the US government supplied four brand new P-40Ms to the CAF following Tsang's bravery. Much to his embarrassment, the new P-40Ms were named *Hsi-lan Nos 1, 2, 3 and 4* in his honour as the 'donor' for the acquisition of the aircraft

As the war drew to a close, fighter groups in the Fourteenth Air Force also turned over their P-51Ds to the Chinese. Here, Tsang, Hsi-lan sits in the cockpit of his P-51D, which still bears the American nickname *Miss Amy* on its nose. Initially, many of the Chinese units retained the original markings of the USAAF aircraft, changing only the national insignia. The CAF's 4th FG received and operated a number of P-51Ds from the USAAF's 75th FS, keeping their distinctive black tails





These aircraft were the first F-84Gs transferred from the USAF to the ROCAF in Taiwan in 1954.

Photographed at Tainan air base, the jets still have the tape in place over the gun ports and are marked with large USAF buzz numbers. ROCAF side numbers and more colourful lightning bolt markings were subsequently applied

destroyed. Tsang downed one of each type. The 9th Sentai reported losing only one solitary Ki-44 and its pilot, however. One P-40N was damaged and its pilot force-landed near Shangnan.

On 23 August Tsang led ten P-40Ns from Hsi-an as escorts for three B-25 Mitchells from the CACW's 1st Bombardment Group that were targeting a bridge over the Yellow River northwest of Kaifeng, in Henan Province. The bombers succeeded in dropping four spans into the river. On the way back home the three top cover P-40Ns led by Tsang were attacked by six Ki-44s near Chengchow. Tsang claimed two 'Tojos' destroyed and a third damaged before his P-40N was hit and he had to force-land between Hwa-hsien and Chih-sui.

The following day Tsang led 14 P-40Ns from the 3rd FG, based at Eh-shih, in a strafing attack on river traffic along the Yangtze between

Tsang, His-lang in the cockpit of a 1st FW F-84G. Under Tsang's command, the wing was the first in the ROCAF to convert to jets in 1954



Hanchuan and Chia-yu, in Hupeh Province. A small JAAF liaison aircraft was spotted near Chin-kou during the mission and it was quickly despatched. The group then strafed two 100-ft ships, a motorboat and 24 sampans on the Yangtze between Chin-kou and Chia-yu. Finally, Tsang spotted a Japanese twin-engined transport aeroplane over Chia-yu and shot it down in flames.

USAAF records gave Tsang credit for six confirmed victories, one while flying with the 75th FS and five with the 3rd FG.

Post-war, Tsang became CO of the 23rd FS/4th FG and continued to serve in the CAF throughout the Chinese Civil War. In 1949 Tsang retreated with the 4th FG to Taiwan. Five years later he was promoted to colonel and given command of the 1st FG, overseeing the group's conversion onto the Republic F-84G Thunderjet. Tsang also helped organise the 'Thunder Tiger' aerobatic team, selecting the most skilled pilots in the 1st FG to tour the US. The ROCAF, as it was officially known then, had learned the value of good public relations, and the tour generated publicity and support in America that eventually led to the transfer of more jet fighters to the ROCAF.

Tsang and members of the 'Thunder Tigers' saw action during clashes over the Taiwan Strait with the Communist Chinese People's Liberation Army Air Force (PLAAF) in the 1950s. On 4 July 1955 Tsang was leading a patrol of four F-84Gs over the coast of China near Ningpo, in Chekiang, when they came under attack from PLAAF MiG-15bis. The experience and training of the F-84G pilots more than made up for the inferior performance of their aircraft, allowing Tsang to lead the Thunderjets in a tight turn to evade an attacking pass by a MiG-15bis. When the Communist fighter overshot, Tsang made the most of the opportunity by hitting the MiG with a well-aimed burst, sending it diving away trailing smoke.

There was some debate about whether this MiG actually went down. Both sides monitored each other's radio communications, and often intelligence services would provide 'confirmation' of probable victories. Tsang was believed to have used the radio call-sign 'Hsi-lan' for his flight, so clearly the 'intimidation' value of a World War 2 ace in the cockpit of a jet far exceeded any concerns for security! Tsang was awarded the Seven Star Medal.

Leng, Pei-shu (冷培樹)

Leng, Pei-shu was born 1922 in Linyi, Shangdong. He was one of the new generation of Chinese fighter pilots who trained in the USA with Class 12 of the Central Aviation Academy. Leng was described as the stereotypical 'fighter jock', being aggressive and highly skilled, but also someone who would get into trouble for flying under bridges (which he did).

Assigned to the 29th FS/5th FG, Leng scored his first confirmed victory on 11 July 1944 when the 5th FG sent 19 P-40Ns to escort B-24s targeting a supply depot in Sinshih. Leng, who was providing top cover for the bombers, intercepted two Ki-43-IIIs from the 48th Sentai as they tried to attack the B-24s. Leng claimed to have shot an 'Oscar' down and damaged the second one.

Eight days later the 5th FG sent six bomb-carrying P-40Ns, escorted by four more Warhawks, to target bridges and an airfield at Sinshih.

The aggressive Leng, Pei-shu and his flight leader Fred Chiao, Wu-o, both of whom served with the 29th FS/5th FG. It was probably because of his aggressive ground strafing that Leng was shot down five times – four times by ground fire. On each occasion he was able to evade capture and return to Chinese lines. Leng and Chiao were great friends, the latter once flying a Ryan PT-19 trainer to pick up Leng after he had been shot down and wounded near the frontlines at Lake Tung-ting





P-40Ns of the 29th FS/5th FG CACW. Note the Chinese nicknames in white on the noses of the fighters, the aeroplane nearest the camera being both named *Tai Sui* and flown by Fred Chiao. The Warhawk behind *Tai Sui* was also named *Tien Ma* (*Sky Horse*), this apparently being a popular name with Chinese pilots

Capt Ho, Han-hung, deputy commander of the 29th FS, led the mission from Chih-kiang. Over the target, the CAF pilots spotted 16 JAAF fighters climbing up to intercept them. The Warhawk pilots jettisoned their bombs and dived on the Japanese aircraft, scattering the Ki-43-IIs. The Chinese pilots, following longstanding doctrine, avoided a turning fight and zoom climbed back up to altitude to re-position for a second attack. Lt Ho, Leng and his flight leader Capt Chiao, Wu-o each claimed a Ki-43-II destroyed on the first pass. Leng then spied another Ki-43-II lurking in the distance, seemingly waiting for an opening to attack him. He pretended not to notice the enemy fighter and dived towards the Siang River to strafe boats. When he was sure the 'Oscar' pilot was following him, Leng steepened his dive to pull away and then zoom climbed for altitude. His opponent tried to break off the pursuit but Leng quickly caught up with him and shot the Ki-43-II down.

Later in the action Leng was wounded in the leg, but he managed to nurse his damaged P-40N back to Chinese lines before bailing out. He returned to operational flying from Chih-kiang ten days later.

On 29 July Col Rouse led 11 P-40Ns from the 5th FG and ten Mustangs and 24 Warhawks from the Fourteenth Air Force as escorts for 24 B-24s that had been sent to bomb Yueyang, in Hunan Province. Once over the target the formation was attacked by an estimated 50 JAAF fighters, which dived through the top cover Mustangs and tangled with the P-40Ns of the 5th FG. Lt Col Dunning, Lt Chang, Tang-tien and Leng each claimed a Ki-43-II destroyed, but they were hard pressed by the attackers. In a head-on exchange of fire with an 'Oscar', Leng's P-40N was hit in the nose and the cockpit area. Wounded in the forehead by flying glass, Leng was forced to bail out when his aeroplane became uncontrollable. He landed near Han-shou, by Lake Tung-ting, where Chinese troops came to his aid. Leng was taken to a Catholic church, where a Belgian priest gave him first-aid.

Word was also sent back to Chih-kiang, where Leng's flight leader, Capt Fred Chiao, Wu-o, was anxiously awaiting news. Two pilots, Leng and



Leng, Pei-shu's 5th FW was the first to convert to F-86F Sabres in 1955, its aircraft being ex-USAF jets that had fought in the Korean War. Initially, the transferred aircraft retained their USAF markings, with only the national insignias replaced. Later on, yellow recognition stripes similar to those used in Korea were added to the fuselage and wings. There were also yellow and red stripes added to the nose. This was how the 5th FW Sabres looked when they fought in the 1958 Taiwan Strait Crisis, the jets employing AIM-9 Sidewinders for the very first time

Lt Chow, Liang, had failed to return from the mission. Chow was later determined to have been killed in action, and Chiao was relieved to hear that Leng was safe. He duly flew out to Chang-teh airfield in a Ryan PT-19 to pick him up, but damaged the aircraft's undercarriage on landing as the runway had been ploughed up by the Japanese. Repairs were made locally and Chiao was able to fly Leng back to Chih-kiang. The PT-19, with its undercarriage shored up by wooden planks and the bracing wire replaced by rope, must have been quite a sight!

Leng was to be shot down three more times by ground fire before the end of the war, and on each occasion he was able to return to Chih-kiang. Some joked that he should have been considered a Japanese ace for losing



F-86Fs of the 2nd FW, 11th FG as they would have appeared on 24 September 1958 when they first fired Sidewinder air-to-air missiles in combat. Note the three-digit side numbers still in use then. Col Leng was transferred to become the 11th FG commander prior to the start of the Crisis. He oversaw the group's work-up to combat-readiness with the missiles and led the mission where they were first used. By then a mature and experienced commander, Leng declined the opportunity to fly one of the missile-armed aircraft. He chose, instead, to fly in the covering flight, where he could better coordinate the action

five aircraft. It has to be said that Leng's aggressiveness probably contributed to this total.

He continued to serve in the ROCAF after the war, retreating to Taiwan in 1949. Leng became deputy commander of the 5th FG when it converted to the North American F-86F Sabre in January 1955. That year, Korean War ace Maj Fred Blesse went on tour in the Far East with three other veteran fighter pilots to lecture on fighter tactics. They visited 12 fighter squadrons in Asia, including the 5th FG at Taoyuan Air Force Base in Taiwan following a special request from the ROCAF's Commander-in-Chief Gen 'Tiger' Wang, Shu-ming. Blesse's verdict was, 'In general, except from one squadron in Itazuke, Japan, the Chinese squadron on Taiwan and one squadron in Korea, the units were unprepared for air-to-air combat'.

While Blesse was in Taoyuan, Leng led two of his best pilots and a US advisor in mock air combat against Blesse's team. It was the performance of Leng and his flight that earned the 5th FG the positive assessment from Blesse. Leng was very impressed with the air combat tactics manual *No Guts, No Glory* that Blesse had written, and he asked him if he could borrow a copy one evening. Leng duly got three of his best English speakers to spend all night hand-copying and translating the book into Chinese. It is little wonder that the 5th FG became the top-scoring ROCAF fighter group during the 1958 Taiwan Strait Crisis.

There were regular clashes between Communist and Nationalist fighters over the Taiwan Strait during the 1950s. For example, on 15 October 1955 one of Leng's men, Capt Sun, Tse-wen, shot down a PLA Naval Air Force (PLANAF) MiG-15bis – Sun brought back gun camera footage of the MiG pilot ejecting.



On 21 July 1956 Leng got the chance to have a crack at the MiGs when two RF-86Fs that had just completed a photo-reconnaissance mission were chased out of China by PLAAF fighters. ROCAF F-84Gs from the 4th FW that were covering the Sabres' retreat initially clashed with the MiGs near the Matsu Islands, off the coast of China. Leng then led four F-86F into the area to help the Thunderjets. Spotting three contrails at an estimated altitude of 41,000 ft, the veteran ace positioned his flight behind and below the MiGs. Closing in, Leng put his radar-ranging gunsight onto the MiG leader and opened fire. The enemy jet was hit, and it dived out of the fight. Leng then closed in on another MiG and opened fire. It too was hit, causing the pilot to rapidly throttle back and Leng to overshoot his quarry. Two of the Sabres following behind opened fire, however, hitting the MiG once again. The enemy jet then tried to dive away, hotly pursued by Lt Liang, Kuo-chun. He hit it with three bursts, causing the fighter to explode in flames.

CACW veteran Capt Peng, Chuan-liang had, in the meantime, chased the first MiG targeted by Leng down from 38,000 ft to 2500 ft before finally forcing the fighter to crash into the sea. Leng was given a third of a credit for downing this MiG. The PLAAF pilots lost that day were Flight Leader Sung, Yi-chun, a veteran of the Korean War, and his wingman Liu, Yeh-chun from the 45th Regiment of the 15th Fighter Air Division. According to ROCAF records, Leng had a total of 4.5 victories in World War 2, the one-third of a share of the victory over the MiG giving him a total just shy of the magical five victories.

Leng later took command of the 2nd FW's 11th FG when it converted to the F-86F. During the 1958 Taiwan Strait Crisis the 11th FG made the first ever use of guided air-to-air missiles in combat on 24 September. Before the mission in question, Leng was asked if he would like to be one of the four AIM-9 Sidewinder 'shooters'. He declined. Instead, as the overall commander of the mission, he would lead a flight to cover the missile-carrying Sabres. The operation proved to be a complete success. When a flight of contrail-pulling Sabres flying at high altitude drew out the enemy fighters, four Sidewinder-armed Sabres waiting below them were able to get clear shots on two flights of PLANAF MiG-15bis. The Sidewinder shooters claimed four jets shot down. The PLA admitted to losing two MiGs and one pilot, with a second pilot surviving ejection. A third MiG was damaged but managed to return to base. Whilst all this was taking place, two ROCAF RF-84F slipped in and out of China at low altitude, completing their missions without being intercepted.

A short while later PLAAF MiG-17s arrived on the scene and a big dogfight ensued. The 11th FG claimed a total of nine jets destroyed during the action without loss. Leng led his flight to cover the withdrawal of the Sabres as they ran low of fuel, at which point a flight of four MiG-17s passed below them chasing the Taiwan-bound F-86s. As Leng led his flight into a diving attack, the MiG-17 pilots spotted the Sabres and abandoned the chase. Leng got behind one of the MiG-17s and scored sufficient hits to be credited with a 'probable'. It was unclear whether the 'probable' was later confirmed by radio intercepts, but Leng was awarded the Five Star Medal nevertheless.

'Leng' is an unusual surname that means 'chill' or 'cool' in Chinese, which would explain why his English radio call-sign was 'Cool'.

APPENDICES

Star Medal Award List

(each star represents a confirmed victory)

Liu, Chi-sheng	9 Star	Yue, Yi-chin	5 Star
Kao, You-hsin	8 Star	Chu, Chia-hsun	5 Star
Tan, Kun	8 Star	Mow, Ying-chu	5 Star
Wang, Kwang-fu	8 Star	Loh, Ying-teh	5 Star
Liu, Tsui-kang	7 Star	Chow, Chi-kai	5 Star
Tsang, His-lan	7 Star	Leng, Pei-shu	5 Star
Wong, 'Buffalo' Sun-sui	6 Star	John Poon-yeung, Wong	4 Star
Arthur Shui-tin Chin	6 Star	Kao, Chi-hang	3 Star
		Chen, Tse-liu	2 Star

COLOUR PLATES

1

Nieuport 17 White 'T' in Black disc, possibly flown by Sgt Etienne Tsu, Escadrille N37, Cachy, France, July 1916

Pilots of *Escadrille* N37 had the first letter of their surname painted in white within a black disc on the side of their aircraft. Sgt Tsu was credited with a confirmed victory on 10 July 1916 when a German aeroplane he attacked was seen by ground observers to crash behind enemy lines. This is believed to have been the first aerial victory scored by a Chinese pilot. Tsu was credited with three confirmed victories – two aircraft and one observation balloon. Some consider him an ace because he was also credited with two aircraft 'forced down'.

2

Curtiss Hawk III 'IV-1' flown by Lt Col Kao, Chi-hang, CO of the 4th PG, Schien Chiao, August 1937

CAF pursuit aircraft were painted olive green overall, with national markings consisting of a white 12-pointed sun in a blue disc on the upper surfaces and undersides of the wingtips. Rudder markings consisted of 12 horizontal stripes, six white and six blue. Large numbers were carried in white on the fuselage sides, with 'IV-1' denoting that this Hawk III was the No 1 aircraft of the 4th PG. Lt Col Kao, Chi-hang, commanding officer of the group, scored the first Chinese victory of the Sino-Japanese War with 'IV-1' on 14 August 1937 near Schien Chiao airfield. His victim was a G3M of the Kanoya Kokutai. Capt Mow, Ying-chu also used the aircraft to shoot down three D1A1 dive-bombers over Nanking on 19 September 1937. 'IV-1' was lost in combat with IJNAF A5Ms over Hankow on 4 January 1938. This profile shows the Hawk III in its original configuration, complete with bomb racks, auxiliary tank and navigation lights, all of which were later stripped off to reduce weight, at the suggestion of Lt Col Kao in October 1937.

3

Curtiss Hawk III No 2102 flown by Lt Liu, Che-sheng, 21st PS/4th PG, Schien Chiao, August 1937

On 14 August 1937, despite poor weather, Liu had flown from Chow Chia-kou with the rest of the 4th PG to Schien Chiao. While they were refuelling word was received of Japanese aeroplanes approaching. Liu took off with his leader, Capt Li, Kuei-tan,

commander of the 21st PS, and Lt Wang, Wen-hua. Patrolling to the west of the airfield, they ran into three G3Ms from the Kanoya Kokutai approaching from the west. Liu shared in the downing of the No 3 G3M in the No 3 Shotai. The following day he shared in the downing of a B2M attack aeroplane from the *Kaga*, although No 2102 was hit in the fuel tank by return fire and Liu had to force-land at nearby Chiao-shi airfield. The No 2 B2M Chutai arrived overhead shortly thereafter and bombed the airfield. Liu had just left his aeroplane when bombs started falling, and he threw himself flat on the ground just as one went off nearby. Fortunately, No 2102 suffered no further damage and Liu escaped injury.

4

Curtiss Hawk III No 2204 flown by Lt Yue, Yi-Chin, 22nd PS/4th PG, Schien Chiao, August 1937

Yue, who was a flight leader, flew this aircraft during the action on 15 August 1937 that saw him claim four B2Ms from *Kaga* destroyed. Details of Yue's actions are lacking in the official CAF account, but according to oral histories from his squadronmates he had stalked his prey using cloud cover, claiming two B2Ms when they were inbound to Schien Chiao. He continued pursuing the aircraft as they turned back towards their carrier, claiming another two over Chien-tang River. It is believed that Yue was also flying No 2204 when he shot down the E8N of PO1c Shigeru Yano on 21 August 1937. This aircraft was lost in combat with eight A5Ms of the 13th Kokutai over Nanchang on 14 December 1937. Five patched-up Hawk IIIs from the 5th PG had been flown to Nanchang to provide air defence while the CAF waited for the Soviet Volunteer Group under Blagoveshchenskiy to arrive. An IJNAF raid was detected just after the Hawk IIIs reached Nanchang, and all five fighters were scrambled – two Chinese pilots each led a flight of foreign volunteer pilots aloft. One flight, led by Lt Kao, Ching-chen in No 2109, consisted of Frenchman Omer Poivre and Australian Robert Whitehead in Nos 2204 and 2205, respectively. All three were shot down, with Kao bailing out, Poivre being killed and Whitehead suffering wounds. The other Chinese flight leader, Lt Yang, Cheng-fang in No 2309, was also shot down and killed. Only German-American Fritz Kreuzberg in No 2307 managed to land safely.

5

Curtiss Hawk III No 2404 flown by Lt Yuan, Pao-kang, 24th PS/5th PG, Yangchow, October 1937

On 21 August 1937, the Kisarazu Kokutai mounted a dawn attack on Yangchow airfield, home of the 5th PG. While Kisarazu's 5th Chutai bombed Yangchow the 4th Chutai targeted nearby Pukou. Yuan took off in No 2404 from Yangchow and soon caught up with the 4th Chutai, shooting down the No 3 aircraft – a 9-shiki Chukoh. In early October No 2404 was stripped down, losing its navigation lights, bomb racks and auxiliary fuel tank in an effort to reduce weight. During the morning action of 12 October 1937 Yuan was again at the controls of No 2404 as part of a flight of four Hawk IIIs that intercepted two E8Ns from the seaplane carrier *Kamoi*. The lead E8N of Lt Nambu was damaged and set on fire, although the pilot still managed to turn around to face Yuan head-on. No 2404 collided with the E8N, losing its lower left wing and part of its upper left wing, as well as suffering damage to the tail. The E8N crashed in flames. Yuan was able to force-land in a field on the outskirts of the town of Kiangyin.

6

Curtiss Hawk III No 2407 flown by Capt Liu, Tsui-kang, CO of the 24th PS/5th PG, Yangchow, October 1937

Liu had started the Sino-Japanese conflict in his assigned aircraft No 2401, but this had been damaged in a forced landing by Lt Yao, Jei after a ground attack mission on 13 September 1937. The 4th PG was sent north to collect Soviet aircraft shortly thereafter, whilst the 24th and 25th PSs stayed behind to defend Nanking. With so few Hawk IIIs now available, pilots started flying the same aircraft on a more regular basis. No 2407, which became Liu's regular aircraft, was stripped down to reduce weight in October. On the 12th of that month Liu shot down an A5M of the 13th Kokutai directly overhead the Chung Hwa Gate in Nanking. This epic dogfight, witnessed by the beleaguered defenders and citizens of Nanking, was a great morale booster. Liu was killed in a flying accident in this aircraft just 13 days later.

7

Curtiss Hawk II No 2804 flown by Lt 'Art' Chin, Deputy CO of the 28th PS/5th PG, Chu-yung, August 1937

'Art' Chin flew this obsolescent Hawk II during the defence of Nanking on 15 and 16 August 1937, helping to shoot down one G3M and damaging two others. Although Chin could not remember the number of the Hawk II he flew on these dates, he did mention an incident that would suggest it was No 2804. The aircraft that Chin flew during the 16 August battle over Chu-yung was damaged by return fire, the pilot force-landing at Chia Hsing. The Hawk II was hard pressed to keep up with the G3M Chin had chased out to Lake Tai Hu, and sitting on the tail of the bomber with zero degree deflection, it was an easy target for IJNAF gunners. Chin subsequently asked Sebie Smith, armament advisor to the CAF, to scrounge a 0.50-calibre machine gun for 'his' Hawk II. This was duly installed, but Chin was sent to Shaokwan to test fly Hawk IIIs coming off the assembly line before he had the chance to fly the modified machine. The up-gunned No 2804 was sent north to Taiyuan with the rest of the 28th PS, and it was one of the few Hawk IIs to survive the fighting and be flown to Hankow on 1 October. That evening there was an air raid warning, and the pilots of the 34th Provisional PS – mostly newly graduated cadets from the Academy – took off in every Hawk II they could find. One went aloft in the up-gunned Hawk II and shot down a twin-engined bomber. Unfortunately, it was an ex-Cantonese Air Force He 111A from the CAF's 19th BS. The crew of the surviving Heinkel were livid, threatening to shoot the pilot responsible. They initially

refused to accept the explanation that an inexperienced new pilot, Sub-Lt Peng, Chow, could have single-handedly downed a heavy bomber. However, examination of all the Hawk IIs showed that only No 2804 had fired its guns. Peng also happened to be Cantonese, which may have helped convince the He 111A crew that this was not a deliberate attack by the Central Air Force. Nevertheless, Peng was arrested and jailed for a period. His career ruined, he later joined the air force of the collaborationist government of Wang, Ching-wei. After the war Peng was arrested, found guilty of treason and executed.

8

Boeing 281 No 1701 flown by Capt John Wong, Poon-yeung, CO of the 17th PS/3rd PG, Chu-yung, August 1937

Wong flew this aircraft into combat on 16 August 1937 during the battle over Chu-yung airfield, near Nanking. The rapid engine start-up capability of the Boeing fighter enabled Wong to get No 1701 into the air just as the Command Shotai of the Kanoya Kokutai arrived overhead. Minutes later Wong shot down the leading G3M, flown by Lt Cdr Nitta, and damaged the No 2 bomber. Wong then ran into the No 1 Shotai, diving below the No 2 aeroplane and shooting it up from below. The G3M fell away in flames and crashed south of Chu-yung, whereupon the two 550-lb bombs it was carrying exploded. No 1701 was shot down during the big aerial battle over Nanking on 19 September 1937. Its pilot, Lt Liu, Lan-ching, bailed out successfully but was killed when three E8Ns strafed him in his parachute.

9

Boeing 281 No 1703 flown by Lt 'Buffalo' Wong, Sun-sui, Deputy CO of the 17th PS/3rd PG, Chu-yung, August 1937

On 15 August 1937 'Buffalo' helped shoot down the No 4 G3M of the No 3 Chutai, Kisarazu Kokutai, whilst flying No 1703. This proved to be the first Japanese aeroplane destroyed over Nanking. However, he missed the opportunity to score a second victory in this aircraft the following day when its guns failed due to a dead battery. 'Buffalo' had chased a crippled G3M from Chu-yung all the way to Suchow, near Shanghai. On 19 September 1937 'Buffalo' went to the aid of a wingman, Lt Liu, Lan-ching, who had been shot down and was now being strafed in his parachute. An A5M from the 13th Kokutai attacked from the left and hit No 1703, wounding 'Buffalo' in the left hand and eventually forcing him to bail out when the Boeing fighter became uncontrollable.

10

Boeing 281 No 1706 flown by Capt John Wong, Poon-yeung, CO of the 17th PS/3rd PG, Chu-yung, September 1937

This aircraft was flown by Wong during the defence of Nanking after his assigned fighter, No 1701, was destroyed while being flown by another pilot during the battle over Nanking on 19 September 1937. On 12 October 1937, again over Nanking, Wong drew first blood when he bounced A5Ms of the 13th Kokutai, shooting one of them down. No 1706 survived the battle of Nanking and was withdrawn to Hankow on 29 October, along with the pilots and groundcrew of the 17th PS, which was transferred to the 5th PG. Wong continued to fly this aircraft while overseeing the re-organisation and re-equipment of the 5th PG with Soviet aircraft. On 3 December Wong flew No 1706 from Hankow to Nanking, where he transferred to the Hawk 75 demonstrator aircraft and flew a reconnaissance mission over Shanghai. After completing the sortie, Wong returned to Hankow in No 1706, where it was later grounded due to a lack of spare parts.

11

Fiat CR.32 No 806 flown by Lt Chen, Tse-liu, 8th PS/3rd PG, Nanking, September 1937

Chen regularly flew this rare fighter during the defence of Nanking in 1937, No 806 being one of only five pre-production series CR.32s still operational with the CAF at the outbreak of war. On 15 August he and his flight leader, Lt Harry Low (in No 808), severely damaged the 9-shiki Chukoh of Lt Yoshida, commander of the 5th Chutai, Kisarazu Kokutai, over Nanking. Yoshida managed to nurse the bomber back to base at Cheju Island on one engine. Two CR.32s were damaged during this action and did not see further combat. Two of the three remaining examples were lost, along with their pilots (Lts Harry Low and Chai, Chi-chang) during the battle over Nanking on 19 September. However, No 806 fought on in almost every action over Nanking, flown either by Chen, Tse-liu or the 8th PS commander, Capt Chen, You-wei. On 29 October No 806 was evacuated to Hankow, where, remarkably, it remained in frontline service until finally retired in January 1938. The great agility of the CR.32, which made it a favourite amongst experienced Chinese pilots, probably contributed to the longevity of No 806, even when fighting against terrible odds. The experienced Capt Chow, Ting-fang flew the aeroplane during its last action, over Hankow, on 4 January. He fought off three A5Ms by himself before escaping into a cloud. The fighter's broad white fuselage stripe was in use during the confrontation with the Canton and Kwangsi Provinces. It was removed once the Sino-Japanese War commenced.

12

Nakajima Type 91 No 288 of the 1st Aircraft Training Squadron, Kwangsi Air Force, 1936

This Type 91 features the triangular fuselage insignia and eight-stripe tail markings synonymous with aircraft of the Kwangsi Air Force – Chinese Central Air Force aeroplanes had tail markings consisting of 12 stripes. This aircraft belonged to the 1st Aircraft Training Squadron, and it was probably flown by Chu, Chia-hsun, the only ace to previously serve with the Kwangsi Air Force. No 288 is believed to have been the original JAAF serial. Kwangsi Air Force aircraft had the Chinese national markings of the 12-pointed white sun in a blue disc on the wings. However, instead of the 12 blue and white stripes on the tail, Kwangsi aircraft only had eight. Black triangles were added to distinguish them from Central Air Force aircraft during the 1936 confrontation with the Central Government. After they were incorporated into the Central Air Force, the Kwangsi aircraft were repainted in the standard scheme of overall olive green with large side numbers in white. Type 91 fighters still active at the outbreak of war included three that were numbered 505, 506 and 507.

13

Polikarpov I-16 Type 5 No 82 (P-series serial unknown) flown by Lt Loh, Ying-teh, Soviet Volunteer Pursuit Group, Hankow, January 1938

Loh flew this aircraft when he served as liaison officer to the Soviet Volunteer Pursuit Group, commanded by Alexei S Blagoveshchenskiy. He used it to shoot down Lt Ryohei Ushioda, Fighter Unit Leader of the 12th Kokutai, over Nanchang on 7 January 1938. A photograph of I-16s thought to be from the Blagoveshchenskiy group appeared in an article in the CAF magazine that was written by Loh, the fighters being painted in the colour scheme depicted here – dark green with light blue undersides and what appeared to be a black nose. Side numbers were large numerals in white. Loh indicated in correspondence with the author that the aircraft he flew during this action was numbered '82'. It was reportedly Blagoveshchenskiy who

ordered the painting of the large numerals on the side of aircraft in his group to aid with identification in the air – ironically, just as the CAF was beginning to switch to smaller, less conspicuous numbers.

14

Polikarpov I-16 Type 5 P 2105/P-5360 flown by Lt Liu, Chesheng, 21st PS/4th PG, Hankow, February 1938

Liu flew this fighter during the defence of Hankow in early 1938. Close-up photographs of it show the switch to using smaller numerals for the squadron aircraft number '2105', and the serial number P-5360 also appears on the fin. The nose appeared to be green rather than black – Russian sources indicate that some I-16s had the black cowlings seen on aeroplanes built in the Moscow Factory 39 repainted green at Lanchow prior to their delivery to the CAF. Liu claimed one solo and two shared victories, all against the formidable A5M fighter, over Hankow in 1938.

15

Gloster Gladiator I No 2909 flown by Maj John Wong, Poon-yeung, CO of the 5th PG, Nan Hsiung, June 1938

This Gladiator I initially flew with the 5th PG from Tien-ho airfield in Canton from early 1938. When the British fighters were first delivered they were adorned with large side numbers as seen here. No 2909 suffered a serious fuel leak during the 24 February 1938 battle over Nan Hsiung airfield and it was damaged on the ground by ordnance dropped by E7N floatplane bombers. Following repairs, No 2909 was flown by 5th PG commander Maj John Wong during the action near Nan Hsiung on 16 June 1938 that saw him detonate the bomb load of a Takao Kokutai G3M. The blast destroyed the leader's aeroplane and damaged both wingmen. Capt 'Art' Chin finished off both of the damaged G3Ms.

16

Gloster Gladiator I No 2809 flown by Capt 'Art' Chin, 28th PS/5th PG, Hankow, August 1938

'Art' rammed an A5M from the 15th Kokutai in this fighter over Hankow on 3 August 1938. By late 1938, all surviving Gladiators in the CAF had had their large side numbers replaced by smaller ones on the fin. This may have been the same aircraft that Chin flew on 16 June 1938 when he downed two G3Ms over Nan Hsiung. The official records indicate the number of his aircraft was 2808, but other records suggest that 2808 had been lost in an earlier action. Chinese Gladiators were initially plagued by gun jamming problems that were almost certainly caused by a batch of bad (perhaps old) ammunition bought from Belgium. Chin was to subsequently experience another serious problem with ammunition in his aircraft (believed to be No 2809). On one hot summer's day in Hengyang, Chin noticed smoke coming from the gun bays of his Gladiator, which was parked in the open. The guns had been loaded with incendiary rounds, and the phosphorus in some of them had leaked out and ignited. Quick action from the groundcrew saved the precious aircraft from bursting into flames. Nevertheless, a few rounds 'cooked off', fortunately without injuring any one.

17

Gloster Gladiator I No 3201 flown by Capt Chu, Chia-hsun, 32nd PS/3rd PG, Nan Hsiung, August 1938

Chu claimed two Kaga-based A5Ms destroyed while flying this aircraft over Nan Hsiung on 30 August 1938. The 32nd PS (a former Kwangsi Air Force unit) replaced its Nakajima Type 91 fighters with Gladiators in 1938, thus becoming the third, and

last, CAF squadron to receive the type. After the protracted action on 30 August, three Gladiators, including Chu's, ran out of fuel and were damaged in forced landings. With no replacement aircraft available, and repair resources limited by the Japanese blockade, the CAF's Gladiator force consisted of just three operational aircraft by mid-1939 – all assigned to the 32nd PS. Although two of these machines were lost in the battle over Kun-lun Pass on 27 December 1939, CAF records show that a single Gladiator soldiered on into 1941.

18

Polikarpov I-15bis P 3904 flown by Anton A Gubenko, 39th PS/Soviet Volunteer Group, Nanchang, April 1938

Little information exists in CAF records on the numbering of Soviet volunteer units, being typically referred to as the 'Russian Pursuit Group' or 'Russian Bomber Group'. The availability of Russian records after the collapse of the Soviet Union has filled in some gaps, however. The aircraft of seven-victory ace, and Spanish Civil War veteran, Anton Gubenko was described as carrying the number 3904. This follows the Chinese practice of a squadron number followed by an aircraft number. CAF squadron numbers in 1937 went up to 35, with 41 later being assigned to a French volunteer unit. It would appear that numbers 36 to 40 were assigned to Russian units, with 38 to 40 going to the three squadrons of the 'Russian Pursuit Group'.

19

Polikarpov I-15bis P-7188 flown by Maj Chen, Tse-liu, CO of the 17th PS/5th PG, Lanchow, summer 1939

As the squadron commander, Chen, Tse-liu was normally assigned a personal aircraft – probably P-1701. Unfortunately, there are no surviving photos of this aircraft, so the profile of P-7188 is representative of the appearance of aircraft in the squadron during the period, with blue undersides extending out to the engine cowling. The inscription *Hsien Luo* 暹 (Siam) on the engine cowling honours the Chinese community in Siam (Thailand), whose donations supported the purchase of this aircraft.

20

Polikarpov I-15bis 2109/P-7163 flown by Lt Liu, Chi-sheng, 21st PS/4th PG, Kwang-yang-ba, July 1939

This aircraft was flown by Liu during the defence of Chungking in the summer of 1939. The inscription *Tan Hsiang Shan Hua Chiao* 檀香山華僑 (Honolulu ex-Patriot Chinese) on the nose honours the Chinese community in Honolulu, whose donations supported the purchase of this aircraft. Note that its spats have been removed to avoid fouling with mud when operating from dirt strips. Liu claimed victories in this aircraft during actions over Chungking in May and July 1939. 2109 was destroyed on the ground during a night raid on 1/2 September 1939. Liu's wingman, Lt Li, Shu-kwang, had taken off in the aircraft at 2215 hrs, and he had been ordered to land back at Kwang-yang-ba airfield to refuel at 2345 hrs. Twenty minutes later Li was instructed to takeoff as the Japanese bombers had finally arrived in the area. Unfortunately, the engine of 2109 refused to start and it was destroyed in the subsequent bombing.

21

Dewoitine D.510 P-5921 flown by Capt Chen, Tse-liu, 17th PS/5th PG, Kunming, November 1939

On 4 November 1939, whilst flying over Chengtu, in Szechuan, Capt Chen, Tse-liu shot down the command aeroplane of Capt

Okuda, CO of the 13th Kokutai. P-5921 was also damaged by return fire and Chen had to force-land. The D.510s the 17th PS received had originally belonged to the 41st PS, where they had been flown by French mercenaries. When the 41st PS was disbanded in mid-1938, the D.510s were transferred to the CAF Academy for use as advanced trainers. By this time, the Academy had been relocated to Kunming, in the remote province of Yunnan. While at the Academy many of the D.510s retained the '41xx' side numbers. Some saw action, flown by cadets, when the IJNAF mounted raids on Kunming from September 1938. During these actions, it was discovered that the fighter's Hispano H404 cannon was prone to jamming when fired in a dive. The springs in the vertically mounted drum magazines were not strong enough to feed against the 'negative G' encountered in a dive. When the 17th PS received P-5921 the original side numbers were painted over. There were also references to '17xx' series squadron numbers in the records.

22

Republic P-43A Lancer 2401/P12083 flown by Capt Chow, Chik-ai, Deputy CO of the 24th FS/4th FG, En-shih, October 1942

Chow was at the controls of this machine when he shot down a high-flying JAAF Ki-46-III 'Dinah' near Nan Cheng in October 1942. This was the first confirmed victory by a Chinese pilot flying the new P-43A. Prior to the arrival of the P-38 Lightning, the turbo-supercharger-equipped Lancer was the only Allied aircraft in China that could catch the high-flying 'Dinah' reconnaissance aircraft. The P-43As were delivered in their original USAAF colours, over which standard CAF markings were applied, including national insignia on the wings, the aircraft number in small numerals on the fuselage side and the serial number on the vertical tail. Photographic evidence suggests that some of the Chinese P-43As did not initially have the blue and white rudder stripes.

23

Republic P-43A Lancer 2101/P-12012 flown by Capt Kao, You-hsin, CO of the 21st FS/4th FG, En-shih, late 1943

Kao found himself in the thick of the action in P-12012 on numerous occasions during the defence of Chang-teh. Due to the incomplete nature of available records, we can only speculate that the side number of this aircraft was indeed 2101 – the squadron commander's aircraft was typically 2101. Of the P-prefixed numbers used for the first P-40Es to reach the CAF, P-11001 to P-11007 were assigned to the 4th PG's Group HQ ('IV-1' to 'IV-7'). P-11012 was 2201 of the 22nd PS. Seven P-43As originally delivered to the USAAF were transferred to the CAF in 1942. Based on the P-40E numbering sequence, P-43A P-12012 may have been 2101. Many of the 125 Lancers that were delivered to the CAF from 1942 developed leaks in their fuel tanks shortly after they entered operational service. Leaking fuel came into contact with the turbo-supercharger and its hot exhaust pipes, often causing catastrophic fires. Indeed, the 4th FG lost its commander, Lt Col Cheng, Shao-yu, in one of these in-flight fires. Because of this and other accidents, the P-43A developed a bad reputation within the CAF. The problem of leaking fuel tanks was alleviated by field fixes, but it was never entirely eliminated. The successes in combat by Kao and Chow helped restore confidence in the type with Chinese pilots, however.

24

Curtiss P-40K Warhawk 2304/P-11029 flown by Lt Tsang, Hsi-lan, 23rd FS/4th FG, Liangshan, May 1943

Tsang used this fighter to shoot a Ki-44 (from the 33rd Sentai) off the tail of a P-40E flown by Maj John R Alison during the action

over Kingmen airfield on 31 May 1943. Tsang received the US Silver Star for this action. The first P-40s received by the 4th FG all had this austere appearance – USAAF green uppersurfaces, grey undersides and with no markings other than national insignia on the wings, reduced-sized fuselage numbers and small serial numbers on the tail. None of the 23rd FS aircraft had blue and white tail stripes in mid-1943. Personal markings on CAF aircraft during this period were virtually unknown. Indeed, applying such artwork would have been considered 'defacing government property'.

25

Curtiss P-40N Warhawk 665/P-11156 flown by Lt Tan, Kun, 7th FS/3rd FG, Ankang, May 1944

The CACW encouraged markings such as the 'sharkmouth' seen on this aircraft. Chinese pilots were also allowed to paint personalised nicknames on their aeroplanes, although no photographs or descriptions of such an addition to 665 are available. Tan scored two confirmed victories flying this aeroplane on 11 May 1944. Lt Wang, Kuang-fu also flew 665 on a number of missions after his own 663 was damaged in an accident.

26

Curtiss P-40N Warhawk 663/P-11151 flown by Lt Wang, Kuang-fu, 7th FS/3rd FG, Ankang, May 1944

The Chinese inscription on the nose of this aircraft was the nickname it was given by Maj Hsu, Chi-hsiang, co-commander of the 7th FS/3rd FG, who also flew the aeroplane. The inscription on the nose of the fighter reads *Tai Kung Ling* (太公令), which was an order given by Tai Kung, the most senior of the gods in Chinese mythology, to the other gods. Initially, it was thought that the inscription had been applied in white. However, more detailed research recently revealed that the inscription was probably in yellow, in contrast to the white numbers on the fuselage and the tail.

27

Curtiss P-40N Warhawk 751 flown by Capt 'Fred' Chiao, Wu-o, 29th FS/5th FG, Chih-kiang, January 1945

This aircraft was assigned to Capt 'Fred' Chiao, Wu-o, but occasionally flown by ace Lt Leng, Pei-shu. It is representative of the appearance of the aircraft in the squadron during early 1945. Chinese nicknames were applied in white across the nose of the aeroplane – *Tai Sui* (太歲) on 751 referred to the 60 'Heavenly Generals' of Chinese mythology. Another P-40N in the flight was nicknamed *Tien Ma* (天馬) after the flying horse of the Heavenly Emperor in Chinese mythology. 'Fred' Chiao recalled that great care was taken to sand down and polish the skin of this aircraft so as to reduce drag. On 21 January 1945, 751 was bounced by JAAF fighters while preparing to bomb and strafe targets near Hengyang. Caught at a serious disadvantage, 'Fred' Chiao jettisoned his bomb-load and managed to evade two attacks before being hit by a third. Wounded in the jaw, and with 751 on fire, Chiao bailed out behind Japanese lines. Fortunately, he was found by Chinese members of a Sino-American Cooperative Organisation commando unit and taken to a US Navy doctor, who treated his wounds. Chiao managed to return to duty at Chih-kiang airfield three weeks after 751 had been shot down.

28

North American P-51D Mustang 756 flown by Lt Leng, Pei-shu, 29th FS/5th FG, Chihkiang, June 1945

On 26 June 1945, 756 was hit by ground fire while strafing Japanese supply dumps near Yueyang, in Hunan Province. Leng was forced to bail out over enemy-occupied territory, although he was able to evade capture when local farmers and officials hid him from Japanese patrols and helped him return to Chihkiang the following month. In reprisal, the Japanese arrested and executed the elderly mother of the local official who had hidden Leng. His Mustang had not received any special markings prior to its loss. However, by the end of the war, most P-51s in the 5th FG had 'sharkmouths' painted on their noses and the group insignia, consisting of a stylised '5' wrapped around a tomahawk, on the fuselage below the cockpit.

29

Republic F-84G Thunderjet 51-16657/F84130 of the 1st FS/1st FG, 1st FW, Tainan, 1955

The vertical tail fin of this aircraft sports the insignia of the 1st FS, which, at the time, resembled the Norwegian flag! The cross, which was black, outlined in white and in a field of red, was referred to as the 'Iron Cross' insignia. Squadron lore suggests that the insignia honours the World War 1 ace-of-aces Manfred von Richthofen. Col Tsang, Hsi-lan was commander of the 1st FW when it converted to the F-84G in 1954. Initially, ROCAF F-84s retained their USAF buzz numbers, but these were soon replaced with the last three digits of the Chinese serial number in large black numerals. By 4 July 1955, when four 1st FS F-84Gs led by Col Tsang clashed with PLANAF MiG-15bis north of the Matsu Islands, most 1st FW Thunderjets had been repainted with the ROCAF numbers. They would have looked like this particular aircraft, which has been displayed outside the ROCAF Academy at Kangshan for many years. Accounts from mainland China indicate that the PLAAF MiG-15bis were from the 4th Fighter Air Division, 10th Regiment.

30

North American F-86F Sabre, Headquarters Flight, 11th FG, 2nd FW, Hsinchu, September 1958

All F-86Fs received by the ROCAF were former USAF aircraft, and some had fought in the Korean War. All had the '6-3' wing and most were retro-fitted with leading edge slats once in Taiwan. Col Leng, Pei-shu was at the controls of this aeroplane when he led the mission to Wenchow on 24 September 1958 that saw the first use of AIM-9 Sidewinder air-to-air guided missiles in combat. Leng was offered, but declined, the opportunity to fly one of the Sidewinder-armed aircraft. Leng felt that, as the mission commander, he should stay back and direct the action.

Back Cover

Curtiss P-40E Warhawk 2301/possibly P-11012 flown by Capt Chow, Chi-kai, 23rd FS/4th FG, Liangshan, June 1943

On 6 June 1943 Ki-48 light bombers from the 90th Sentai caught the 4th FG on the ground just after the group had landed at Liangshan airfield. Eleven P-40s (ten CAF and one USAAF) were completely destroyed in the bombing, with Chow being the only pilot to takeoff. It is unclear whether he took off in 2301, as some accounts have him flying an aircraft 'other than his own' with 'sharkmouth' markings (perhaps a USAAF P-40 from the 23rd FG). In any event, Chow managed to shoot down two Ki-48s and damage a third so badly it crash-landed back at its base. For this remarkable feat-of-arms Chow was awarded the Order of the White Sun and Blue Sky.

INDEX

Figures in **bold** refer to illustrations/photos.

airfields: Ankang **61**, 80, 81, 84, 95; Chiao-shi 15, 16, 40, 91; Chu-yung **43**, **44**, 47, 48, **52**, **55**, **56**, 92; En-shih **60**, 77, 80, 94; Kingmen **80**, 82, 83, **84**, 95; Liangshan **28**, **60**, 71, 72, 76, 79, **80**, 94, 95; Liuchow **37**, **51**, 52, 78; Shao-kwan 38, 39, 48, 49, 64; Tien Ho 48, 64, 65, 93;

Blagoveshchenskiy, Alexei S. **30**, **31**, **32**, 91, 93
bombers: D1A1 Navy Type 94 14, 15, 19, 21, **27**, 64, 65, 91; D1A2 21, 22, 32, 33, 38, 39; Fiat CR.32 17, 22, 23, **29**, **56**, 68, 93; Kawasaki Ki-48 'Lily' 77, 79, **80**, 82, 83, 95; Mitsubishi: B2M Navy Type 89 14, 15, 16, 18, 19, **20**, **26**, 40, 91; G3M Navy Type 96 12, **13**, 14, 16, 17, 18, 23, 24, 26, 27, 28, 31, 33, **35**, 37, 38, 40, 43, 44, 45, **46**, 47, 48, 49, 50, 52, 68, **69**, 70, 71, 72, 73, 74, 75, 78, 91, 92, 93; Model 21 27, 67, 72, **73**; Model 22 72, **73**, 74, 78; 9-shiki Chukoh 24, 68, 92, 93; Republic F-84G Thunderjet **62**, **85**, 86, 90, 95; SB-2 **32**, 33, 37, 45, 51

cannons 17, **27**, 69, 70, 72, **73**, 78, **81**, 84, 94
Canton 8, 10, 33, 37, 38, 46, 48, 49, **64**, 65, 93
Cantonese Air Force 10, 29, **43**, 47, **64**, **68**, 92
carriers: *Kaga* 12, 14, 15, 19, 20, 24, **26**, 27, 30, 38, 39, 40, 45, 64, 65, 91, 93; *Kamoi* 16, 19, 21, 22, 25, 28, 37, 92;
Central Aviation Academy 9, 18, **19**, **20**, **21**, 24, 26, 29, 40, **48**, 72, 78, 80, 82, 83, 86
Chengtu 47, 51, 66, 67, 70, 71, **73**, 74, 78, 94
Chennault, Claire L. 12, 25, 44, 48, 50, 51
Chiang, President Kai-shek 8, 9, 25, **33**, 40
China **4**, 6–12, 14–19, 21–32, 34–37, 39–45,

47–52, 63–64, 66–84, 86–87, 89–91, 93–95;
Central Air Force 10, **12**, 25, **29**, 34, **37**, **43**, **47**, 52, 68, 92, 93; Chinese Air Force (CAF) **6**, 8, 10, 12, 17–24, 26–30, 32–33, 38–41, 44–47, **50**, 51, 63–81, 83–84, 86–87, 91–95;
Combined Pursuit Group 28, **50**, 67, 69;
fighter groups: 1st FG **62**, 86, 95; 3rd FG **61**, **69**, 80–86, 95; 4th FG **60**, 77, **83**, **84**, 86, 94, 95; 5th FG **61**, **62**, **86**, **87**, 89, 95; fighter squadrons: 1st FS **62**, 95; 7th FS **61**, **69**, 80–84, 95; pursuit groups: 3rd PG 19, 21, 25, **27**, **29**, 31, 33–38, 43, 50, 52, **55**, **56**, **58**, 66, 68, **80**, 92, 93; 4th PG **4**, 12, 13–15, 17, **18**, **20**, **26**, 28, 31, **35**, **36**, 37, 40, 47, **53**, **54**, **57**, **59**, 72–80, 83, **84**, 91–94; 5th PG 16, 20, 24, 27, 29, 31, **35**, 37, 45–48, **54**, **55**, 57–59, 63, **64**, 66, 68, **70**, 71, 75, 91–94; pursuit squadrons: 7th PS 29, 34–36; 8th PS 12, 18, **27**, 29, 33, **35**, **56**, 68, 93; 17th PS 17, 19, 21, 22, 27, **35**, 37, 43, **45**, 48, 52, **55**, **56**, 59, 67–71, 92, 94; 21st PS 12–15, **18**, **20**, 31, 33, 40, 41, 47, **53**, **57**, **59**, 72–77, 91–94; 22nd PS **12**, **14**, 18, 19, **26**, **36**, 40, 41, **54**, 73, **77**, **81**, 94; 23rd PS **4**, **12**, **14**, 26, **36**, 40, 41, **75**, 79, **80**, 83, **84**; 24th PS 20, 24, 29, **35**, **54**, 72, **73**, 75, 78, 92; 25th PS 16, 25, 27; 28th PS **23**, 26, 46–50, **55**, **58**, 63–66, 92, 93; 29th PS 48, 63, 64, 65, 71, 73; 32nd PS 37–39, 50, 51, **58**, 93, 94; 39th PS **58**, 94; 34th Provisional PS 14, 26, **48**, 92; Chinese-American Combined Wing (CACW) **6**, 69, 76, 77, **80**, 82–85, **87**, 90, 95; People's Liberation Army Air Force (PLAAF) 86, 90, 95; Republic of China **7**, **8**, 17, 45, 77;

Republic of China Air Force (ROCAF) 6, 17, 18, 45, **79**, **80**, **82**, **85**, 86, 89, 90, 95
Chungking 20, 33, 41, 67, 70–74, 78, 94

dogfights 15, 17, 19, 21, 31, 35, 36, 38, 45, 51, 81, 82, 90, 92

fighters: Boeing 281 17, 19, 21, 22, 23, 27, 28, 43, **44**, 45, 52, **55**, **56**, 63, 92; Curtiss: Hawk II **21**, **48**, 49, **55**, 92; Hawk III **4**, 12, **13**, 14, 15, **16**, 17, 19, **20**, 21, 22, **23**, 24, 25, 27, 28, 30, 40, 49, **53**, **54**, 69, 73, **78**, 91, 92; IV-1 **4**, 19, 27, 28, **53**, 91, 94; Hawk 75 44, 45, 72, 92; P-40N Warhawk 751 **61**, **80**, **81**, 82, 85, 87, 95; Dewoitine D.510 **59**, 69, **71**, 94; Gloster Gladiator **32**, 33, 37, 38, 39, **46**, 49, 50, 51, **57**, **58**, 63, 64, 65, 93, 94; Kawasaki Ki-10 biplane fighter **32**, **35**, **36**, 68; MiG: 15bi 86, 89, 90, 95; 17 90; 19 **80**; Mitsubishi: A5M Navy Type 96 **4**, 16, 17, 18, 19, 20, 21, 22, 23, 25, **26**, 27, 28, 29, **30**, **31**, **32**, 33, 38, 39, 40, 41, **44**, 45, 50, 51, 63, 64, 65, 91, 92, 93; A6M Zero-sen 6, 66, 67, 71, 74, 75, 80, **81**; Mustang P-51D **62**, **83**, **84**, **95**; Nakajima: A4N 21, 25, 44, 64, 65; A4N Navy Type 95 21, 25, 44, 65; Ki-43 'Oscar' 76, 77, 81, 82, 83, 86, 87; Ki-44 'Tojo' **80**, 81, 82, 83, **84**, 85; North American: F-86F Sabre **62**, **88**, **89**, 90, 95; Polikarpov: I-15 17, 28, 31–38, 40, **41**, **45**, 50–52, **58**, **59**, 66, 68–76, **78**, **80**, **81**, 94; I-16 17, 18, **26**, **28**, **30**, 31, **35**, 38, **40**, **50**, **57**, 69, 71–74, **78**, 93; Republic P-43A Lancer **60**, 76–79, 94
floatplanes: Nakajima E8N Type 95
reconnaissance **4**, 16, 19–22, 24, 25, 27, 28, 37–39, 49, 52, 63, 64, 91, 92
France 7, 11, 12, **53**, 71, 91, 94

Germany 7, 9, **43**, 47, 75, 91

Hankow **18**, 23, 28, 29, 31, 37, 38, **40**, 41, 45, 46, 48, **50**, **57**, **58**, 67, 68, 70, 71, 82, 91, 92, 93

Japan **4**, 6, 7–14, 16–32, 34–39, 42–51, 63–68, 70–78, 80–81, 84, 86–89, 91–95
Imperial Japanese Naval Air Force (IJNAF) **4**, 12, 13, 15, 17, 19, **20**, 21, 22, 25, **26**, **27**, 28, 29, **30**, 31, **32**, 33, **37**, 38, 40, 41, 43, **44**, **46**, 47, 50, 51, 64, 65, 66, 67, 68, **69**, 70, 71, 72, **73**, 74, 75, 80, **81**, 91, 92, 94; chutais: 1st 18, 26, 27, 33, 65, 72, 84; 5th 24, 47, 68, 92, 93; Kanoya Kokutai (Air Group) 12, 13, 14, 40, 43, 44, 47, 48, 52, 91, 92; 12th **27**, 30, 31, **32**, 40, 41, 74, 93; 13th 20, 22, **27**, 28, 30, 40, 41, 63, 68, 70, 72, **73**, 74, 91, 92, 94; Shotai **4**, 13, 15, 27, 28, 40, 43, 44, 46, 65, 72; Command 12, 43, 44, 48, 92; Japanese Army Air Force (JAAF) 6, 10, 28, 32, 34, **35**, **36**, **48**, 51, **64**, 67, **68**, 69, 72, 78, 79, **80**, 81, 82, 83, 84, 86, 87, 93, 94, 95;

Lanchow 17, 28, 40, 45, **50**, **59**, 67, 68, **69**, **70**, 75, 93, 94

machine guns 48, 50, 63, 66, 74, **75**, **78**, 92
Manchuria 7, 8, 9, 10, 11, 12, 18, 20, 26, 29, 34, 40, 42, 72

monoplanes 16, 25, 28, 36, 44, 45, 51

Nan Hsiung 38, 39, **46**, **57**, **58**, 63, 64, 93

Nanchang **30**, **31**, **32**, 33, 47, 49, **58**, 91, 93, 94

Nanking **4**, 8, 11, 12, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, **26**, **27**, 28, 29, **30**, 34, 43, **44**, 45, 47, 52, **56**, 68, 77, 83, 91, 92, 93

pilots: Chen, Capt/Lt/Maj Tse-liu 22, 37, **56**, **59**, 66, 67, **68**, **69**, **70**, 71, 91, 93, 94; Chi-hang, Lt Kao 11, **12**, **13**, **18**, **26**, 45, **53**, 91; Chin, Arthur 'Art' Shui-tin **26**, **42**, **43**, **44**, **45**, **46**, **47**, **48**, 49, **50**, **51**, **52**, **55**, **58**, 63, 64, 91, 92, 93; Chow, Capt Chi-kai **60**, **76**, **78**, **79**, **80**, 83, 91, 94, 95; Chu, Capt Chia-hsun 29, 33, 34, 36, 37, 38, 39, **58**, 91, 93; Gubenko, Anton 31, **32**, **58**, 94; Hsu, Maj Chi-hsiang **68**, **69**, **70**, **73**, **75**, **80**, **81**, 82, 95; Kao, Lt Col Chi-hang 11, **12**, **13**, 14, 15, 16, 17, **18**, **22**, **26**, 45, **53**, 91; Kao, Capt/Lt You-hsin **35**, **60**, 72, 74, **75**, **76**, 77, 80, 91, 94; Leng, Lt/Col Pei-shu **62**, **86**, **87**, **88**, **89**, 90, 91, 95; Li, Capt/Maj/Lt Kuei-tan **13**, **18**, 28, 40, 91; Liu, Lt Che-sheng **40**, **41**, **53**, **57**, 71, 72, 91, 93; Liu, Lt Chi-sheng **13**, **59**, 74, 91, 94; Liu, Capt Tsui-kang 17, 19, **20**, **21**, 22, **23**, 24, 25, **54**, 91, 92; Loh, Lt Ying-teh 17, **29**, **30**, **31**, **32**, **33**, **57**, 91, 93; Mow, Capt Ying-chu **4**, 25, **26**, 27, 28, 91; Nambu, Lt Tokumori 16, 19, 25, 28, 92; Nitta, Lt Cdr 12, 13, 43, 92; Tan, Lt Kun **61**, **80**, **81**, 82, 91, 95; Tsang, Lt/Col Hsi-lan **60**, **80**, **83**, **84**, **85**, 86, 91, 94, 95; Wang, Lt Kwang-fu **61**, **82**, 83, 91, 95; Wong, Lt/Maj 'Buffalo' Sun-sui 27, 42, 52, **55**, 64, 66, 91, 92; Wong, Capt/Maj John Poon-Yeung 17, 22, 42, **43**, **44**, **45**, **46**, 47, 49, 51, 52, **55**, **56**, **57**, 91, 92, 93; Wu-o, Capt 'Fred' Chiao **61**, **86**, **87**, 88, 95; Yoshida, Lt Kazuo 24, 49, 68, 93; Yuan, Lt Pao-kang 24, 25, **46**, **54**, 92; Yue, Lt Yi-chin 18, **19**, **20**, **54**, 91

provinces: Canton 29, 48, 67, 93; Chekiang 7, 25, 45, 86; Hunan 40, 49, 77, 87, 95; Kansu 17, 28, **50**, 51, 67; Kwangsi 10, 29, 33, 34, **35**, 37, 47, 51, 78, 93; Kwangtung 8, 42, 43, 47, 52, **78**; Szechuan 18, **19**, 28, 33, **45**, 67, 72, 76, 82, 94;

reconnaissance 16, 29, **30**, 35, 44, 45, 51, 63, 72, 73, 75, 78, 79, 90, 92, 94

rivers: Chien-tang 13, 14, 91; Pearl 64, 65, 66; Yangtze 11, 16, 17, 20, 21, 22, **27**, 28, 29, 31, 76, 85, 86

Russia/Soviet Union/USSR 7, 8, 10, 17, 28, 30, **31**, **32**, 39, **40**, 66, 75, 93, 94

Schien Chiao 9, 12, **13**, 14, 15, 40, 47, **53**, **54**, 91
Shanghai 7, 10, 11, 12, 15, 19, 20, 21, 22, 24, 25, **27**, 29, 44, 45, 48, 92

Star Medals 18, 69, 71, 74

One **47**, 69; Two 69, 91; Three 18, 91; Four 47, 91; Five **20**, **33**, 80, 90, 91; Six 52, 66, 91; Seven 24, 86, 91; Eight 77, 82, 83, 91; Nine 71, 91

Suchow 14, 15, 24, 52, 92

Taiwan 6, 12, 18, 38, 46, **48**, **82**, **85**, 89, 90, 95
Strait 86, **88**, 89, 90

wars: Great Plains War 9, 10, 34; Korean War **31**, **88**, 89, 90, 95; Sino-Japanese War **6**, **8**, 10, 19, **30**, **50**, 70, 91, 93; World War 1 7, 95; World War 2 **26**, **37**, **43**, 76, 82, 86, 90

Yangchow **20**, 24, 26, **54**, 92

Front Cover

On 19 September 1937 the Imperial Japanese Naval Air Force mounted a large raid on the Chinese capital, Nanking. The 17 D1A dive-bombers sent to attack the city were escorted by 12 A5M fighters and 16 E8N floatplanes. The Chinese defenders put up every available fighter – 23 in all – to intercept the raid. Eight Curtiss Hawk III fighters were led aloft by Capt Mow, Ying-chu, commander of the 23rd Pursuit Squadron, 4th Pursuit Group. As they were running to their aircraft, Mow's wingmen, Lts Wang, Tian-pi and Tai, Kwang-chin, exchanged words of encouragement before the impending battle. 'Brother Wang, today shall be the day we score our first victories!' Little did they know that they would soon both be fighting for their lives against the formidable A5M fighters appearing in large numbers over Nanking for the first time.

Mow, flying the 4th Pursuit Group commander's aircraft 'IV-1', led his fighters in a head-on pass against a large formation of Japanese dive-bombers over the Ching-lung Mountains, east of Nanking. After the initial pass, Mow turned and attacked the leading Shotai while his wingmen Wang and Tai attacked the No 2 Shotai. Between them, Wang and Tai damaged one of the dive-bombers, but then came under attack by escorting A5Ms diving from above. Tai was shot down in flames and killed, leaving Wang to engage the A5Ms alone. Tying down several fighters, he gave Mow time to make his attack on the lead dive-bomber Shotai. Mow took full advantage of the opportunity and shot down all three D1A2s in the lead Shotai. Although he only claimed one 'certain', one 'probable' and one 'damaged', Japanese records showed that all three D1A2s were indeed lost. This action took place over the Sun, Yat-sen Mausoleum, which provides the dramatic backdrop in this depiction (*Cover artwork by Mark Postlethwaite*)

First published in Great Britain in 2015 by Osprey Publishing
PO Box 883, Oxford, OX1 9PL, UK
PO Box 3985, New York, NY 10185-3985, USA

E-mail: info@ospreypublishing.com

Osprey Publishing, part of Bloomsbury Publishing Plc.

© 2015 Osprey Publishing Limited

All rights reserved. Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright, Design and Patents Act 1988, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrical, chemical, mechanical, optical, photocopying, recording or otherwise without prior written permission. All enquiries should be addressed to the publisher.

A CIP catalogue record for this book is available from the British Library

ISBN: 978 1 4728 0561 4

PDF e-book ISBN: 978 1 4728 0562 1

e-Pub ISBN: 978 1 4728 0563 8

Edited by Tony Holmes

Cover Artwork by Mark Postlethwaite

Aircraft Profiles by Chris Davey

Index by Mark Swift

Osprey Publishing is supporting the Woodland Trust, the UK's leading woodland conservation charity, by funding the dedication of trees.

www.ospreypublishing.com